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1992**

Guide for applying for approval  
of municipal and private water  
and sewage works : sections 52  
and 53 Ontario Water

82841

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Ontario

Ministry  
of the  
Environment

# **GUIDE FOR APPLYING**

FOR

**APPROVAL OF**

**MUNICIPAL AND PRIVATE**

**WATER AND SEWAGE WORKS**

SECTIONS 52 AND 53  
ONTARIO WATER RESOURCES ACT  
R.S.O. 1990, CHAPTER 0.40

**APPROVALS BRANCH**

**SEPTEMBER 1992**

CONTENTS OF THIS DOCUMENT ARE  
SUBJECT TO CHANGE WITHOUT FURTHER NOTICE





# CHANGES TO PROCEDURES & REMINDERS

## 1. NEW APPLICATION FORMS AND GUIDES

Applications for approval under sections 52 & 53 (formerly sections 23 & 24) of the *Ontario Water Resources Act (OWRA)* and sections 9 & 27 (formerly sections 8 & 27) of the *Environmental Protection Act (EPA)* received on or after October 1, 1992 should be submitted with the new application form. The new form outlines basic information which must be provided in order to process the application. Applications received without the necessary prerequisite information **WILL BE RETURNED TO THE APPLICANT.**

Further information beyond that identified on the application form may also be required and will be dependant of the specific works requiring approval.

The new forms along with guides to assist an applicant in the preparation of a complete application are being finalized and will be distributed early in September 1992.

## 2. FEES FOR APPROVAL

Applications for approval under the above sections of the OWRA and EPA submitted by applicants other than municipalities and received on or after October 1, 1992 will require that an appropriate fee be attached to the application. In the case where a public hearing is required, the fee will be payable subsequent to the hearing. Normal Ministry of the Environment office hours will not be extended beyond 5:00 pm on September 30, 1992 to receive applications and those received by Approvals Branch after this time will be processed on October 1, 1992.

Applications received without the fee attached **WILL BE RETURNED TO THE APPLICANT**

Details on how to calculate the fee are included in the guides and provisions for fee estimates have been made on the new application form.

## 3. COPY OF APPLICATION TO MOE DISTRICT OFFICE

In the case of all section 52 & 53, OWRA applications and section 9, EPA applications submitted to Approvals Branch for processing, a duplicate copy of the application form and documentation should be submitted to the appropriate MOE District Office. In the case of applications submitted to Approvals Branch under section 27, EPA, reference should be made to the above guides for MOE Regional/District copy requirements at the application stage.



## TABLE OF CONTENTS

Foreword	i
Purpose	1
Background	1
Municipal Industrial Strategy for Abatement (MISA)	1
Pollution Prevention	2
Multi-Media Transfer of Pollutants	2
Approvals Legislation	2
Environmental Policies	3
Fees	3
PART I      GENERAL INSTRUCTIONS FOR APPLICANTS	5
1.    Who Must Apply	5
2.    When is an Approval Required	5
3.    Pre-Submission Consultation	5
4.    Submission of Application	7
4.1   Direct Submission Procedure	7
4.2   Submission through the Transfer of Review Program	8
5.    Completion of Forms	8
6.    False Information	9
7.    Review of Applications	9
8.    Types of Approval	11
8.1   Certificate of Approval	12
8.2   Certificate of Approval Subject to the Submission of Final Plans and Specifications	12
8.3   Amendment to Certificate of Approval	12
9.    Processing Time of Application for Approval	13

10.	Availability of Information to Public	13
11.	Information and Assistance	15
PART II	APPLICATION FORM	17
PART III	GUIDE TO COMPLETING THE APPLICATION FORM	19
1.	General Information	19
1.1	Owner of Works and Land	20
1.2	Applicant	20
1.3	Operating Authority	21
1.4	Contact for Technical and Design Information	21
1.5	Location of Facility	21
1.6	Compliance with the Environmental Assessment Act	22
1.7	Approval Fee Estimate	22
1.8	Other Approvals and Permits	23
2.	Information Checklist	23
3.	Statment/Signature	24
3.1	Statement by Applicant	24
3.2	Statement by Owner	24
3.3	Statement by Municipality	24
4.	Attachments	25
4.1	List of Attachments	25
5.	Description of the Proposed Works	25
5.1	Description of sewers and watermains	25
5.1.1	Type of Works	25
5.1.2	Location of Works	26
5.2	Description of treatment plants, pumping stations, storage, retention facilities etc.	29
PART IV	TECHNICAL INFORMATION	31
1.	Environmental Impact Information	31
1.1	Sewage Works	31
1.2	Water Works	31
1.3	Assimilative Capacity of the Receiving Water Body	32



1.4	Assimilative Capacity of the Ground Water Aquifer	33
2.	Design Guidelines	34
3.	Documentation	35
4.	Information Required for Approval of Sewage Works	35
4.1	Preliminary Report	35
4.2	Design Brief	38
4.2.1	Sanitary Sewers	39
4.2.2	Storm Sewers	39
4.2.3	Storm Water Management	40
4.2.4	Sewage Pumping Stations	41
4.2.5	Sewage Treatment Plants	42
4.3	Plans	44
4.3.1	Plans of Storm and Sanitary Sewers	44
4.3.1.1	General Plan.	44
4.3.1.2	Detail Plans	45
4.3.2	Plans of Sewage Works Structures (Treatment Plants, Storm Water Management Systems, Pumping Stations, etc.)	46
4.3.2.1	Site Plans	46
4.3.2.2	General Layout and Detail Plans	46
4.4	Specifications	47
5.	Information Required for Approval of Water Works	48
5.1	Preliminary Report	48
5.2	Design Brief	51
5.3	Plans	53
5.3.1	Plans of Watermains	53
5.3.1.1	General Plan	53
5.3.1.2	Detail Plans	54
5.3.2	Plans of Water Works Structures (Wells, Intakes, Treatment Plants, Pumping Stations, etc.,)	54
5.3.2.1	Site Plans	54
5.3.2.2	General Layout and Detail Plans	55
5.4	Specifications	56

APPENDIX I	APPROVALS LEGISLATION OVERVIEW	57
1.	Ontario Water Resources Act	59
1.1	Definitions	59
1.2	Water Works	60
1.2.1	Permit to Take Water	61
1.3	Sewage Works	61
1.3.1	Hearing Requirement for Sewage Works	62
1.4	O.Reg. 815/84 - Plumbing Code	63
1.5	Approval of Water and Sewage Works	63
1.6	Control Orders	64
2.	Environmental Assessment Act	64
3.	Environmental Protection Act	65
3.1	Contaminant Discharges to Air	65
3.2	Waste Management	66
3.3	Sewage System	67
4.	Niagara Escarpment Planning and Development Act	69
APPENDIX II	ENVIRONMENTAL POLICIES	71
APPENDIX III - MOE OFFICES		81
	Map of MOE Regions and District Offices	83
	MOE Approvals, District Offices and Regions	85
APPENDIX IV - LIST OF APPROVALS AND PERMITS		87
APPENDIX V - TRANSFER OF APPROVAL PROGRAM		91
	Municipalities Currently under Transfer of Approval Program	93
	Works Covered by the Transfer of Approval Program	94
	Works not Covered by the Transfer of Approval Program	94

## FOREWORD

The Ministry of the Environment's approvals program is designed to ensure that all undertakings requiring approval under any environmental Acts are carried out in accordance with these Acts, Regulations, Policies and Guidelines of the Ministry ("requirements"). These requirements are continually updated by the Ministry as environmental standards are modified to reflect changes and needs. As requirements are changed, the information required to demonstrate compliance with them may also change.

In recognition of this, the Ministry intends to periodically update this document to reflect the most current information.

*While every effort has been made to ensure the accuracy of the information contained in this guide, it should not be construed as legal advice. If proponents users of this guide have any doubts or questions regarding legal aspects of the document, they should consult legal counsel.*

For any addenda or revisions users of this guide may contact,

Approvals Branch  
Municipal Approvals Section  
250 Davisville Avenue  
Toronto, Ontario  
M4S 1H2

(tel.) 416-440-3713





## PURPOSE

This guidance document is designed use for applicants requesting approval of municipal and private water works or sewage works under section 52 or section 53 of the Ontario Water Resources Act R.S.O. 1990 (OWRA) [formerly section 23 and section 24, OWRA, R.S.O. 1980). This document describes the approvals process in general, provides assistance in completion of the application form and specifies the technical information that may be required in support of each application.

## BACKGROUND

The Ontario Ministry of the Environment (the Ministry) is responsible for maintaining, and where degraded, enhancing the quality of the environment, including air, land and water, in the Province of Ontario. The quality of the environment must be maintained or enhanced to a level sufficient to protect human health and the ecosystem and to sustain economic growth and the well-being of future generations the people of Ontario.

Several pieces of legislation, including the OWRA, the Environmental Protection Act (EPA), Pesticides Act (PA), the Environmental Assessment Act (EAA) and the Niagara Escarpment Planning and Development Act (NEPDA), together with numerous regulations, assist the Ministry in fulfilling this goal.

These Acts and the regulations made under them, outline the authority and responsibility of the Ministry, as well as establish and stipulate the legal requirements for all persons using the environment. To maintain control over the environment, these Acts require that approvals or permits be obtained prior to the implementation of a variety of undertakings that may have impact on the environment, including public health. A list of approvals and permits required by the Acts is contained in Appendix IV.

In addition to the approvals and permits required by the Ministry, other ministries such as the Ministry of Natural Resources or Ministry of Housing, and other levels of government, such as the Federal Government, local Municipal Governments, and other bodies such as Conservation Authorities, may have approval or permit requirements. It must be emphasized that approval under one Act does not abrogate the requirement to obtain approval under other Acts or other sections of the same Act.

## MUNICIPAL INDUSTRIAL STRATEGY FOR ABATEMENT (MISA)

As part of the Municipal Industrial Strategy for Abatement (MISA) program, the Ministry is developing regulations under the EPA to limit the discharge of contaminants from municipal and industrial wastewater. Regulations are being developed for nine industrial



sectors, as well as the municipal sector. These regulations will require municipalities to meet a specified effluent quality in discharges from municipal sewage works, and to demonstrate compliance by monitoring the effluent and reporting the results to the Ministry.

In order to meet the new effluent limits proposed by the MISA program, it may be necessary to upgrade many existing sewage works.

#### **POLLUTION PREVENTION**

Pollution prevention is any action which eliminates the creation of pollutants at the source.

Pollution prevention should be incorporated into the design of all new or upgraded water and sewage works prior to the design of pollution control equipment.

#### **MULTI-MEDIA TRANSFER OF POLLUTANTS**

The impact of residual wastes and by-products on the whole environment including air, land and water should be considered during the design of water and sewage works. Removal of a pollutant from one media with direct transfer to another media is discouraged.

Most pollution control devices involve some degree of media transfer of pollutants (for example scrubbers remove air contaminants and generate sewage; and clarifiers remove solids from waste water for disposal at landfill sites where leachate from the sites transfers the contaminants to water.) When selecting these processes, proponents should ensure that the ultimate fate of contaminant results in the least degradation of the environment.

#### **APPROVALS LEGISLATION**

The statutory requirements for approval of water and sewage works are contained in section 52 and section 53 of the OWRA.

It is the proponent's responsibility to be aware of and understand the legal requirements of the OWRA and other applicable legislation.

Copies of the OWRA and other relevant Acts may be obtained from the Information Services Branch, Publications Ontario, 880 Bay Street, Toronto, Ontario, M7A 1N8, Toll-free phone number 1-800-668-9938.

Appendix I of this document provides a summary of key elements of the OWRA and other Acts administered by the Ministry in relation to the approvals process.

## **ENVIRONMENTAL POLICIES**

The Ministry of the Environment is responsible for developing and implementing the policies of the Ontario Government to protect the natural environment and manage waste. These policies are contained in the Manual of Environmental Policies and Guidelines. (the Manual).

Copies of the Manual may be obtained from the Information Services Branch, Publications Ontario, 880 Bay Street, Toronto, Ontario, M7A 1N8, Toll-free phone number 1-800-668-9938. The Manual may also be accessed through any of the Ministry Regional or District offices.

As a general rule, any proposed sewage and water works must be in compliance with these policies. In the case of some of the policies, formal procedures for a deviation from policy are outlined.

Appendix II of this document contains a brief summary of the policies which are relevant to water and sewage works for which approval under the OWRA is required, along with a brief synopsis of each policy. To obtain a complete text of a policy proponents should refer to the Manual. Ministry staff may be contacted for further clarification.

## **FEES**

On October 1, 1992 the Ministry of the Environment will begin charging fees for approvals issued under Section 9 and Part V of the EPA and Section 52 and Section 53 of the OWRA for the commercial, industrial and private sectors. The municipal sector is not included under the fees program at this time.

The fees will be applied to those applications received and approved after October 1, 1992 in accordance with impending regulations.





## **PART I    GENERAL INSTRUCTIONS FOR APPLICANTS**

### **1.    Who Must Apply**

The responsibility for obtaining approval for water or sewage works generally lies with the owner of the works. In special circumstances, owners may designate a second party, such as a consulting firm, to apply on their behalf. In these cases, there must be a written legal agreement between the owner and the designated agent. The agreement must state that the agent is authorized to act on behalf of the owner for the purpose of obtaining approval for the works under section 52 or 53, OWRA. When an agent is applying on behalf of an owner, the Ministry must be notified by the owner in writing, that such an agreement is in effect.

If the owner is a corporation, the person signing the application on behalf of the corporation must be someone who specifically is authorized by the corporation to do so.

### **2.    When an Approval is Required**

The effect of sections 52 and 53 of the OWRA is to require that approval be obtained prior to the establishment of new sewage or water works, and prior to the alteration, extension or replacement of existing sewage or water works. According to the Act, "sewage works" means any works for the collection, transmission, treatment and disposal of sewage or any part of any such works. "Water works" means any works for the collection, production, treatment, storage, supply and distribution of water, or any part of any such works.

A further discussion of the approval requirements of the OWRA and other Acts administered by the Ministry is contained in Appendix I.

### **3.    Pre-submission Consultation**

Pre-submission consultation is a dialogue between the Ministry and the proponent which occurs prior to the submission of an application for approval. Pre-submission consultation provides the opportunity to define the environmental objectives for the project, to discuss approval requirements, as well as to identify any public concerns.

All applications for approval must include well defined environmental objectives. Examples of defined environmental objectives include effluent criteria, hydrogeological criteria, sludge utilization and disposal, land use and planning considerations. In the case of simple application, such as

watermain extension, the objective could be a minimum pressure. These objectives must satisfy all acts, regulations, policies, objectives and guidelines of the Ministry. The proponent is responsible for developing the environmental objectives for the proposal and ensuring that the design of the works satisfies these objectives. Proponents should consult the Ministry for assistance in identifying and interpreting the Ministry's approval requirements for project, as well as to discuss the terms of reference for studies needed to demonstrate compliance with these requirements.

Proponents of new or expanded treatment facilities or complex projects must have some form of pre-submission consultation with the Ministry.

Pre-submission consultation may be initiated by contacting the Ministry's local District Office and appropriate municipality. The District Office may call upon or direct the proponent to other branches or sections of the Ministry which play a role in the approval process. These Branches include the Approvals Branch, Technical Assessment Section of the Regional Office, Water Resources Branch or Hazardous Contaminants Branch. Briefly, the responsibilities of these branches / sections with respect to approval process are as follows:

- i) The Approvals Branch is responsible for promoting compliance of the works with the Ministry's objectives, and for issuing the approval;
- ii) The Regional Technical Assessment Section provides the terms of reference for surface and ground water quality impact assessments. It also is responsible for reviewing and accepting the level of impact on any particular receiving water body;
- iii) The Water Resources Branch and Hazardous Contaminants Branch are responsible for development of Provincial Water Quality Objectives;

The proponent should be prepared to discuss the nature of the proposal, proposed treatment, expected effluent quality and location of proposed discharge point. The Ministry in turn, confirms the environmental objectives for the project, the need for ground water or surface water impact assessments and provides information on public consultation. The Ministry will also discuss with the proponent any special concerns that must be addressed in the application for approval. Following the discussions, the proponent can complete the design with a clear understanding of the objectives, and submit for approval a complete application that addresses the concerns of the Ministry. Pre-submission consultation for major projects saves both time and money for the



## **proponent and Ministry.**

The locations and addresses of the District Offices and Approvals Branch are listed in Appendix III. It should be noted that, the appropriate District Office is the District Office responsible for the area where the works are proposed to be located.

### **4. Submission of Application**

Application for approval of water or sewage works under OWRA is made to the Ministry by completing the appropriate application form, (Part II and Part III of this guide), and submitting it, together with the information required by Part IV of this guide, in accordance with the appropriate submission procedure.

The fee for the approval should be calculated by the proponent in accordance with the impending Regulation and then recorded in the application form. Where applicable, a certified check or money order must be included in the submission.

For each approval required under environmental legislation other than OWRA a separate application must be submitted to appropriate authorities, complete with appropriate fee and all technical information respecting to the proposal.

In general, there are two different submission procedures for applications for approval. Applications for works having a minor impact upon environment and which are located in designated municipalities are routed through the Transfer of Review Program. All other applications are submitted directly to the Ministry. Both submission procedures are outlined below.

#### **4.1 Direct submission procedure**

Two (2) copies of the application form, each complete with supporting information must be submitted to the Ministry.

One copy should be sent to the Director of Approvals Branch with the fee (where applicable) and a second copy forwarded to the local District Office of the Ministry. The covering letter should be addressed to the Director of Approvals Branch with a copy to the local District Office.

When the application is submitted to the Ministry for review a certified cheque or money order should be made payable to "The Treasurer of Ontario".

The locations and addresses of the District Offices and Approvals Branch are listed in Appendix III. It should be noted that the appropriate District Office is the District Office responsible for

the area where the works are proposed to be located.

#### **4.2 Submission through the Transfer of Review Program**

The Transfer of Review Program is a program where a designated municipal authority reviews the application and supporting documentation. The municipality then submits the application to the Ministry together with a recommendation for approval, or comments explaining why an approval is not recommended.

The Transfer of Review Approval Program is limited to the works having a minor impact upon the environment within specific designated municipalities. Those works which are subject to a Transfer of Review and those municipalities which currently are in the Transfer of Review Program are listed in Appendix V.

It is recommended that before submitting an application, the proponent should contact the Engineering Department of the designated municipalities to confirm that the proposed works can be reviewed under the Transfer of the Review Program, and to obtain more specific instructions.

Usually the proponent must submit two (2) copies of the application, supporting documentation and the fee (where applicable) to the participating municipality and one copy of the application and documentation to the local MOE District Office.

When the application is submitted for review to a municipality participating in the Transfer of Review Program, the municipality should be contacted to determine the correct payee for a review fee.

#### **5. Completion of Forms**

Unless otherwise directed by the Approvals Branch, applications must be submitted on the Ministry's prescribed form (Part II of this Guide). Each item in the application form and guide must be addressed. If a particular item is not applicable, "NA" must be entered to indicate that the item has been considered.

If information has been submitted with a previous application this may be specified on the new application. In this case proponents may refer in the new application to the information and the certificate of approval number of the previous submission. The reference must clearly state what information remains current and what information is no longer correct.

Each application, together with all supporting information and references, must be complete or it will be returned to the proponent.



The scope of the information required by the application form and this guide covers a complete facility. The Approvals Branch is aiming, where feasible, to have only one certificate of approval for works such as water treatment and sewage treatment plants. Therefore, when information concerning the entire facility is not on record through previous submissions, it is necessary to submit a complete comprehensive application, so that a single site certificate of approval may be issued. When this information is on record with the Approvals Branch, it is sufficient to submit an application with supporting information concerning only the alterations. Each application for approval of complex works (water treatment and sewage treatment plants) must be complete with respect to the proposed alterations. In addition all existing certificates of approval that may be affected by the proposal must be identified and the impact of the alterations on the existing works and the environment must be addressed.

## **6. False Information**

It is an offence under Section 98 of the OWRA to knowingly give false information in any application, return or statement made to the Minister or an employee of the Ministry in respect of any matter under the OWRA or regulations made under that Act. The OWRA sets out a fine structure which is applicable where any person is convicted of an offence under the Act.

## **7. Review of applications**

Following receipt of the application, the Ministry (or designated municipal authority on its behalf) reviews the proposal to assess whether the works comply with relevant Ministry guidelines and policies. Part of this assessment include evaluating the effect on the public health and environment, as well as considering the accepted principles of environmental engineering.

The review would not normally include an assessment of the architectural, mechanical, structural, electrical or instrumentation components of the works except to the extent that they affect process performance.

The reviewers primarily are the Approvals Branch and Technical Assessment Sections and District Offices of Regional Operations Division. The Approvals Branch coordinates and provides engineering expertise to the review; the Technical Assessment Sections provide effluent quality criteria and hydrogeological criteria; and the District Offices review sites and local environmental concerns. Other Branches of the Ministry may also be called upon to provide expertise, such as the Water Resources Branch or Hazardous Contaminants Branch.

The following procedure is used by the Approvals Branch to process

the application:

- \* Upon receipt of the submission, the is recorded and the application is entered into a computer data base by administration staff. The application is then forwarded to the appropriate unit and assigned to a Review Engineer.
- \* The Review Engineer conducts a short initial screening and review to determine if there are any gross errors or omissions of information. **Incomplete applications will be returned to the proponent.** When the application is accepted for review, the proponent will be sent an acknowledgment letter specifying a Ministry reference file number, anticipated processing time and the Review Engineer's name and telephone number.
- \* The Review Engineer performs a review of the application to assess whether the details are complete; the proposal complies with all Ministry acts, regulation, policies, objectives and guidelines; the design reflects sound environmental engineering principles; adequate controls and contingencies are provided to facilitate the proper operation of the works; whether the estimated fee has been calculated in accordance with the impending Regulation. The Review Engineer may also request input to the review from the District Office, Technical Assessment Section of the appropriate Regional Office or other Branches of the Ministry.

The review leads to one or more of the following:

- i) A request for additional information;
- ii) A request for design changes and revised fee estimate;
- iii) A draft approval recommended to the Director;
- iv) A draft notice of denial recommended to the Director;

Requests for additional information and design changes are communicated in writing to the proponent with a deadline for response. Failure to respond will result in the assumption that the proponent no longer wishes to proceed with the application and the application will be returned.

- \* A public hearing under section 54 or 55 of the OWRA may be required prior to the issuance of an approval under the Act. Pursuant to Section 7 of the OWRA, when the Environmental Assessment Board holds a public hearing it shall serve notice of their decision resulting from the



hearing and the Director shall implement this decision. Should a public hearing be required, the fee submitted with the application will be refunded. In this circumstances the fee will be required only when the certificate is ready to be issued. An invoice will be sent to the proponent.

- \* Upon recommendation of the Review Engineer, when satisfied, the Director (Approvals Branch) will grant approval by signing a certificate of approval. If a certificate of approval already exists for the facility, the Director may grant approval for the proposal by issuing a new certificate or by amending the existing approval to include the new works. Where, in the opinion of the Director, it is in the public interest to do so, the Director may refuse to grant approval or grant approval on such terms and conditions as he/she deems necessary.

Upon granting of the Director's approval, the applicant may then proceed to construct and operate the works.

In granting approval, the Director may impose terms and conditions on the approval which may concern the operation and performance of the works (for example, conditions cover such items as effluent limits, monitoring and reporting on effluent quality and contingencies to prevent accidental spills or upsets.)

Should the Director decide to impose any conditions on the approval or refuse to grant approval, Section 100 of the OWRA requires the Director to provide written notice of this intention with reasons. This notice is appealable to the Environmental Appeal Board provided that the appeal is filed within 15 days of receipt of the notice.

## **8. Types of Approvals**

Depending on upon circumstances and whether or not there already is a Certificate of Approval for that facility, an approval may take one of the following forms:

- a Certificate of Approval;
- a Certificate of Approval subject to the submission of final plans and specifications; or
- an amendment to a Certificate of Approval.

The following provides guidance in determining which approval option is best suited for a particular application.



## **8.1 Certificate of Approval**

An approval is issued when an application has met all the requirements of the Ministry. The Certificate of Approval under the OWRA gives approval to construct and operate the works. It should be noted that other approvals, permits, clearances, etc. may be required from other jurisdictions.

Details of the technical information required to be submitted with application for approval are outlined in PART IV of this guide.

## **8.2 Certificate of Approval Subject to the Submission of Final Plans and Specifications**

An approval, subject to the submission of the final plans and specifications is given by the Ministry, if required by the applicant (usually for treatment works). This occurs only when the design of the works has advanced to the stage where all major technical decisions that affect performance of the works have been made, but design details have not been completed.

Such an approval is not an authorization to begin construction, but allows the applicant to arrange for financing of the works and to obtain the Ministry's concurrence prior to undertaking the detailed engineering design. This approval may be requested by the Ontario Municipal Board (OMB) in its consideration of fund expenditures.

A special condition is included in this type of approval in order to ensure that prior to construction, detailed design drawings, specifications and an Engineer's report containing detailed design calculations are prepared for the works, and are reviewed and accepted by the Director.

An approval which is subject to the submission of final plans and specifications is not intended to replace the pre-submission consultation.

Details of the technical information required to be submitted with application for such an approval are outlined in PART IV of this guide.

## **8.3 Amendment to Certificate of Approval**

Certificates of Approval are amended when changes to existing approved works are proposed or it is necessary to change the special terms and conditions of a Certificate of Approval,

e.g., altering compliance criteria, monitoring parameters or operating procedures, or correcting errors and omissions in a Certificate of Approval.

#### **9. Processing Time of Application for Approval**

The expected processing time goals for applications submitted to Approvals Branch are as follows:

(i) Applications which arrive with complete documentation, and with environmental impact information, effluent criteria, hydrogeological criteria or raw water quality analysis which have been accepted/endorsed by the Ministry Regional office during pre-submission consultation are likely to be processed within four weeks.

(ii) Applications which arrive with complete documentation, but with environmental impact information, effluent criteria hydrological criteria or raw water quality analysis which have not been accepted/endorsed by the Ministry Regional office will be processed. However, the review time will be as long as necessary.

Note: It is expected that where the proponent initiates pre-submission consultations, this situation will not occur except under emergency conditions.

(iii) Applications for which a public consultation/hearing is required will be processed. However, the review time will be as long as necessary.

(iv) Applications which arrive without environmental impact information, effluent criteria, hydrological criteria or raw water quality analysis where required will be returned to the applicant.

(v) All other incomplete applications will be returned to the applicant.

A complete application of approval consists of a completed and signed application form and all relevant supporting information as specified in the application form and in this document.

#### **10. Availability of Information to Public**

The release of information contained in application forms or submitted in support of applications is subject to the provisions of the Freedom of Information and Protection of Privacy Act, 1987



(FIPPA) and the Municipal Freedom of Information and Protection of Privacy Act, 1989. These Acts define what may or may not be disclosed to the public, and will be used to assess requests for information contained in an application for a certificate of approval.

To be exempt from disclosure, the information must meet all three of the criteria set out in section 17 of the FIPPA. These criteria are described below.

1. The information is a trade secret or scientific, technical, commercial, financial, or labour relations information.
2. The information was supplied, to the Ministry, or designated authority on its behalf, in confidence. The information must have been explicitly supplied and consistently treated in a confidential manner.
3. It must be demonstrate that one or more of the following harms will occur if the information is released. The release of information will:
  - \* Prejudice the competitive position or interfere with the contractual of other negotiations of a person, group of persons, or organization. This prejudice or interference must be significant;
  - \* Result in similar information no longer being supplied to the institutions where it is in the public interest that similar information continue to be supplied. This does not apply where a statute or regulation requires that the information be supplied.
  - \* Result in undue loss or gain to any person, group, committee or financial institution or agency; or
  - \* Reveal information supplied to, or the report of, a conciliation officer, mediator, labour relations officer or other person appointed to resolve a labour relations dispute.

The applicant should identify all documents which are to be considered confidential, i.e. exempted from disclosure, and must provide detailed evidence in support to the claim to the exemption.

The evidence in support of this claim will be one of the factors the Ministry considers when making a decision regarding disclosure of the records. If the decision is to release all or some of the information that was requested to be kept confidential, the applicant will be notified before the record is released. If the applicant disagrees with the decision, an appeal may be made to the Information and Privacy Commissioner for Ontario, who will review the decision.

## **11. Information and Assistance**

For any assistance or advice regarding the filing of applications for approval of water and sewage works under the OWRA, the local District Offices or Municipal Approvals Section of the Approvals Branch may be contacted. The telephone numbers and addresses are listed in Appendix III.





## **PART II APPLICATION FORM**





Ontario

Ministry  
of the  
EnvironmentMinistère  
de  
l'EnvironnementApplication for Approval of  
Water and Sewage Works

(Sections 52 and 53 of the Ontario Water Resources Act)

\* Ce formulaire est disponible en français

For Office Use Only	
Application Number	Payment received \$ _____
	Date received _____
	Initials _____

Information contained on this form is collected under the authority of the Ontario Water Resources Act, RSO, 1990 (OWRA). It is used to evaluate applications for approval of water and sewage works according to the requirements of the OWRA. Questions should be directed to Approvals Branch, 250 Davisville Ave., 3rd floor, Toronto, Ontario M4S 1H2 or your local Ministry of the Environment District Office.

1. General Information

Submission procedure	
<input type="checkbox"/> Direct submission	<input type="checkbox"/> Transfer of review program
Owner's name	Municipality
Brief description of works	
Type of works	
<b>Water Works</b>	<b>Sewage Works</b>
<input type="checkbox"/> watermains	<input type="checkbox"/> groundwater well
<input type="checkbox"/> pump station	<input type="checkbox"/> storm sewer
<input type="checkbox"/> storage	<input type="checkbox"/> sanitary sewer
<input type="checkbox"/> treatment	<input type="checkbox"/> stormwater retention
<input type="checkbox"/> other	<input type="checkbox"/> treatment
<input type="checkbox"/> other	<input type="checkbox"/> other
Type of approval requested	
<input type="checkbox"/> Approval	<input type="checkbox"/> Approval subject to the submission of final plans and specifications
<input type="checkbox"/> Amendment to the existing certificate of approval	
When applying for amendment provide existing Approval Number	
Are the proposed works located in an area of development control as defined by the Niagara Escarpment Planning and Development Act (NEPDA)	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

## NOTES

- (1) When completing this form, please refer to the "Guide for Applying for Approval of Municipal and Private Water and Sewage Works, Section 52 and 53, Ontario Water Resources Act, R.S.O., 1990". (the Guide)
- (2) This form must be completed in its entirety in order for it to be considered an application for approval.  
**INCOMPLETE SUBMISSIONS WILL BE RETURNED TO THE APPLICANT.**
- (3) A complete application for approval consists of:
  - (1) a completed and signed application form
  - (2) all relevant supporting technical information as specified in this form and the Guide
  - (3) approval fee (where applicable)**The Ministry may require additional information.**
- (4) Two copies of the application together with the supporting information must be submitted to the Ministry of the Environment, one copy with the fee to the Director of Approvals Branch, Municipal Approvals Section, 3rd Floor, 250 Davisville Avenue, Toronto, Ontario M4S 1H2 Tel: 440-3713, and a second copy to the local Ministry of the Environment District Office.

## 1.1 Owner of Works

Name (attach proof)	
Address	
City/ Province	
Postal Code	Telephone number
Fax number	
Does the owner of the works own the land? <input type="checkbox"/> Yes <input type="checkbox"/> No (if No, please provide name and postal address of the land owner)	



## 1.2 Applicant

- ☐ Same as owner ☐ Different than owner (provide details)

Name (attach proof)

Address

City/ Province

Postal Code

Telephone number

Fax number

## 1.3 Operating Authority

- ☐ Same as owner ☐ Different than owner (provide details)

Name

Signature

Address

City/ Province

Postal Code

Telephone number

Fax number

## 1.4 Contact for Technical and Design Information

Name

Signature

Address

City/ Province

Postal Code

Telephone number

Fax number

## 1.5 Location of Facility

## 1.6 Compliance with the Environmental Assessment Act (EAA)

The works for which this application is made have fulfilled all requirements of the EAA by virtue of the following:

- ☐ The works are proceeding in accordance with the procedures set out in:
- ☐ Class Environmental Assessment for Municipal Sewage and Water Projects
  - ☐ Class Environmental Assessment for Municipal Roads Projects
- Indicate Schedule of Activity: ☐ Schedule A ☐ Schedule B ☐ Schedule C

- ☐ The works are exempt from the requirements of the Environmental Assessment Act:

☐ Under Section : \_\_\_\_\_ of Ontario Regulation No: \_\_\_\_\_

☐ Under Exemption Order: \_\_\_\_\_

If Regulation or Exemption Order does not refer directly to these works, state in a covering letter or other document why it does not apply to the works.

- ☐ The works are proceeding in accordance with : \_\_\_\_\_  
(Identify individual Environmental Assessment process approval Notice)

- ☐ The works are not subject to EAA:

**1.7 Approval Fee Estimate (where applicable)**

The "cost" to be used to estimate the fee includes all equipment and construction costs but does not include costs for land, engineering services and costs of facilities for which permit or approval is applied for under other Sections of the Ontario Water Resources Act or Environmental Protection Act for which appropriate fees have been or will be paid. The fees shall not be less than \$50 and not more than \$100,000 (for more information refer to the Guide).

Cost for the purpose of fee estimate \$ \_\_\_\_\_

2% of cost \$ \_\_\_\_\_

Estimated Fee ( \$50 min. \$100,000 max.) \$ \_\_\_\_\_

Certified cheque or money order attached ☐ Yes ☐ No

When the application is submitted to the Ministry for review a certified cheque or money order should be attached and made payable to "The Treasurer of Ontario". When the application is submitted for review to a municipality participating in the Transfer of Review Program, the municipality should be contacted to determine the correct payee. **DO NOT SEND CASH.**

**1.8 Other Approvals / Permits**

List of all other approvals / permits applied for or received under the Niagara Escarpment Planning and Development Act, Environmental Protection Act and Ontario Water Resources Act which are related to this project.

Documentation	Provided		If No give reason
Description of the proposed works	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Environmental Study Report (ESR)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Permit to Take Water (OWRA)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Development Permit (NEPDA)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Preliminary Report	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Design Brief	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Hydraulic calculation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Process calculations	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Final plans (contract drawings)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Specifications	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>Water Treatment Works Information</b>			
Complete raw water quality analysis	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Treatability study	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Hydrogeologist Report (Groundwater)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>Sewage Treatment Works Information</b>			
Influent characteristics	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Effluent quality criteria	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Confirmed by MOE Regional staff	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>Performance Information</b>			
Flow monitoring program	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Treated sewage / water			
Quality monitoring Program	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>Environmental Impact Information</b>			
Receiving water assimilative capacity	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Proposed mixing zone	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Ground water assessment	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

**3.1 Statement by Applicant**

I, the undersigned, hereby declare, that, to the best of my knowledge, the information submitted in support of this application is complete and accurate in every way.

Name \_\_\_\_\_ Position \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

### 3.2 Statement by owner

(must be signed by the Owner if the applicant or contact person for technical and design information is not the Owner)

I, the undersigned, hereby declare, that the applicant identified in Item 1.2 and the Contact for Technical and Design information identified in 1.4 of this form are authorized to act on my behalf for the purpose of obtaining approval under sections 52 and 53 of the Ontario Water Resources Act or the works identified herein..

**Nema**

**Position**

**Signature**

Date \_\_\_\_\_

### 3.3 Statement by Municipality

I, the undersigned, hereby declare on behalf of the Municipality, that the Municipality has no basic objection to the construction of the works in the Municipality.

Name \_\_\_\_\_

**Position**

**Signature**

Date \_\_\_\_\_

#### 4.1 List of Attachments

List all attachments which are to be considered part of this application. (the documents or portions thereof of which you are requesting to be exempted from disclosure under provision of the Freedom of Information and Protection of Privacy Act must be marked "confidential").

## 5.1 Description of the Proposed Works

Refer to the Guide for format and general rules for preparation of description of the proposed works to be approved.



## PART III GUIDE TO COMPLETING THE APPLICATION FORM

### 1. GENERAL INFORMATION

The cover page requires information needed to identify the proposal. The following information is required:

- Submission Procedure: direct or through the Transfer of Review Program.
- The legal name of the owner of the works as per General Information item 1;
- The municipality in which the facility is located with reference to the type of municipal organization, e.g., City of Hamilton or Improvement District of Cameron;
- A brief description of the proposal in form of a project title to be used as a reference for all correspondence and computer data storage, e.g., upgrading of existing John Street Pumping Station serving the Village of Newville;
- Type of Works: it may be for one or more of the following

#### Water Works

- \* watermain(s)
- \* pump station
- \* storage
- \* groundwater well
- \* treatment

#### Sewage Works

- \* storm sewer(s)
- \* sanitary sewer(s)
- \* pump station
- \* stormwater retention
- \* treatment

- Type of approval:
  - \* approval;
  - \* approval subject to the submission of final plans and specifications;
  - \* amendment to the existing certificate of approval;
- Existing relevant Certificate of Approval numbers. In all cases, where the modifications or amendments affect any existing Certificates of Approval, the existing Certificate of Approval number must be provided.
- Indicate whether the proposed works are located within an area of development control as defined by the Niagara Escarpment Planning and Development Act (NEPDA). An approval under the Ontario Water Resources Act (OWRA) cannot be issued until the requirements of the (NEPDA) have been met.

## 1.1 Owner of Works and Land

The legal name of the owner of the works is required for all applications. Certificates of approval are legal documents and must be issued to the correct legal owner.

To ensure that the owner is properly identified, the following supporting documentation is required to be submitted unless the owner is a municipality or other government agency:

### (1) Corporations

#### (a) Provincially incorporated companies

- Copy of Form 1, 2 or 3 under the Corporations Information Act.

#### (b) Federally incorporated companies

- Copy of Articles of Incorporation, Articles of Continuance (Form 11) or Articles of Amendment (Form 4) under the Canada Business Corporations Act.

### (2) Partnerships

- Copy of declarations under the Partnerships Registration Act as obtained from the Ministry of Consumer and Commercial Relations;

### (3) Individuals

- Copy of birth certificate, passport or other document which will establish the legal name;

If the owner of the works is not the owner of the land on which the works are situated, the owner of the land must be identified. The appropriate agency/party should be noted on the application form and the address attached.

## 1.2 Applicant

The applicant must be identified for all applications. The applicant must be identified as the owner, where this is the case. Where the applicant is not the owner, the applicant must be identified by correct legal name of the company or individual. The applicant's correct postal address, telephone number and FAX number must also be provided.

### 1.3 Operating Authority

If a second party has contracted to operate the works on behalf of the owner of the works, **the operator must be identified** for all applications. Where the operator or the owner are the same person, this should be stated. The operator must be identified by correct legal name of the company or individual, and its correct postal address, telephone number and FAX number must also be provided.

### 1.4 Contact for Technical and Design Information

A person who is familiar with the technical details of the proposal and has the authority to make design changes **must be identified** so that they may be consulted during the review process. This will normally be the Engineer responsible for the design of the works. The Engineer's postal address, telephone number and FAX number must be provided.

In accordance with the Professional Engineers Act, only licensed Engineers may practice professional engineering in the Province of Ontario. Accordingly, all engineering documents associated with applications for approval must be certified by a licensed Professional Engineer.

### 1.5 Location of Facility

The location of the property on which the works are located **must be accurately identified**. The order of preference for identification is as follows:

- i) Urban address e.g. 123 John Street, Toronto, M6S 4L9 Ontario,  
or  
Rural plan e.g. Lot 3, Concession X, Township of High Falls, R5M 3Z7 Ontario,  
or  
Municipal plan e.g. Lot 3 and Part Lot 4, Registered Plan 112, City of Toronto, Ontario;
- ii) Township supported by map co-ordinates e.g. Universal Transverse Mercators (UTM), easting xxxxxx and northing xxxxxxx in the Township of Jocelyn, Ontario;

In the case of water treatment and/or sewage treatment plants the location description should include Geographic Information System, Universal Transverse Mercators (UTM) code for the facility and the intake/discharge point.



## **1.6 Compliance with the Environmental Assessment Act (EAA)**

Undertakings for which approval is required under sections 52 and 53 of the OWRA may also be subject to the requirements of the (EAA).

Section 6(1) of the EAA prohibits issuing a Certificate of Approval under the OWRA to an undertaking subject to the EAA unless the requirements of the EAA have been satisfied.

It is the proponent's responsibility to comply with the EAA.

The following compliance options, one of which must be identified, are included in the application form to simplify the statement to be made by the applicant with regard to EAA compliance:

- \* The first block covers undertakings within the class "Municipal Roads Projects" or the class "Municipal Sewage and Water Projects". The Municipal Engineers Association should be contacted for documents detailing the planning procedures for these classes.
- \* The second block allows for specific statement of the Regulation or Order which exempts the undertaking.
- \* The third block provides for other situations such as where an undertaking has been through the formal Environmental Assessment process and has been given a Notice to proceed.

Questions regarding clarification of the requirements of the EAA may be forwarded to the Environmental Assessment Branch of the Ministry.

## **1.7 Approval Fee Estimate**

In accordance with the impending Regulation, the fee for an approval under sections 52 and 53 OWRA for the establishment of new sewage and water works or the extension, alteration or replacement of existing sewage and water works is two (2) percent of the estimated cost of the new works or two (2) percent of the estimated cost of the extension, alteration or replacement of existing works. The fee may be not less than \$50 and not more than \$100,000.

The "cost" to be used to estimate the fee includes equipment, labour, materials and other construction costs including buildings necessary for the proper functioning of the subject matter but does not include costs for land, engineering services, taxes and costs of any pollution control facilities for which permit or approval is

applied for under other sections of OWRA or Environmental Protection Act (EPA) and for which appropriate fees have been or will be paid.

The cost is restricted to the works which form part of the application and should not include the cost for equipment forming part of the existing approved works. For example, if sewage treatment works are to be expanded by the addition of a third clarifier, the cost is that associated with the installation of that clarifier only.

The labour, materials and fabricating of equipment available within the proponent's organization at no additional cost should be estimated at market value and included in the cost of the works for the purpose of fee estimation.

For applications not involving any costs, the flat fee of \$50.00 will be applied.

### **1.8 Other Approvals and Permits**

A list of all other approvals or permits required by Ministry legislation which are related to the project and which the applicant will apply for, has applied for, or received approval for, **must be reported**. A list of approvals and permits required by the Acts which are relevant to sewage or water works, is contained in Appendix IV. For example, the subject application may be for approval of a new water supply works to be located in the Niagara Escarpment Planning Area, complete with a ground water well, treatment and pumping facilities and a stand-by power diesel generator set. The applicant should report that an application under section 9, EPA has been submitted for the installation of internal combustion engine (diesel generator), the Permit to Take Water has been issued under section 34, OWRA and the Development Permit has been issued under section 24-(1), Niagara Escarpment Planning and Development Act (NEPDA).

**Note:** The Permit to Take Water (OWRA) and the Development Permit (NEPDA) must be received before submission of the application for approval under sections 52 and 53 and form part of the documentation required for processing application.

## **2. INFORMATION CHECKLIST**

The Information Checklist **must be completed** for all applications. The information required may accompany the application or may be referenced from existing certificate of approval files. If any change has occurred to the referenced information since last



submission, the information must be updated and resubmitted.

Details of the technical information requirements are outlined in PART IV of this guide.

### **3. STATEMENT/SIGNATURE**

#### **3.1 Statement by Applicant**

Applicants are required to make a statement that to the best of their knowledge, the information submitted in the application is complete with respect to this guide, and accurate. This statement must be signed.

It is an offence under section 98 of the OWRA to knowingly give false information to the Ministry respecting matters under the OWRA.

#### **3.2 Statement by Owner**

If the applicant identified in item 2.2 or the contact for technical and design information identified in item 2.4 differs from the owner, the owner is required to make a statement that those persons identified are authorized to act on his/her behalf for the purpose of obtaining approval for the works. A written statement to that effect appended to the application will also be acceptable.

#### **3.3 Statement by Municipality**

If the owner is not the municipality in which the works are to be constructed, the signature of the municipal clerk or other authorized person is required. This is to establish the municipality's general acceptance of the proposed works but does not necessarily imply technical approval and/or responsibility for the works.

The general acceptance of the proposed works connected to the municipal water supply and/or sewage treatment and disposal systems means that the municipality has assured itself that:

- i) the proposed works will be served adequately by the municipal sewage treatment and disposal works and will be within the uncommitted treatment capacity of the sewage treatment and disposal works, both hydraulically and in terms of effluent requirements as specified on any applicable existing Certificate of Approval; and/or
- ii) the proposed works will be served adequately by the municipal water supply and treatment works and will be



within the capacity of the water treatment works to supply water of sufficient pressure, quantity and quality both in terms of public health and aesthetic requirements as specified on any applicable existing Certificate of Approval.

#### **4. ATTACHMENTS**

##### **4.1 List of Attachments**

The attachments must be listed on the application form. The documents or portions thereof for which the proponent requests exemption from disclosure under the Freedom of Information and Protection of Privacy Act (FIPPA) should be identified.

#### **5. DESCRIPTION OF THE PROPOSED WORKS**

A comprehensive description of the works should be appended to the application for approval. The purpose of the description is to describe, in detail, the works to be approved. The Ministry has adopted, to satisfy the need of the Ontario Municipal Board and other agencies, a format in which the descriptions appearing on the certificate of approval should enable location of the works in the field without the use of engineering drawings. When preparing works descriptions, the following general rules should apply.

##### **5.1. Description of sewers and watermains**

The description on a Certificate of Approval dealing with sewers and watermains can be divided into the following two sections:

- Type of Works
- Location of Works

##### **5.1.1 Type of Works**

This section should indicate the type of works that are to be approved namely: sewers, watermains, forcemains, etc., and the municipality in which the works are located.

In the case where the works are not related to a subdivision or other development, the following phrase is normally used:

"Watermains and appurtenances to be constructed in the City of Small Falls as follows:"

In the case where the works are related to subdivision or development of some kind, the wording is:

"Watermains and appurtenances to be constructed in the Maple Subdivision, Phase III (56T-79013) in the City of Small Falls as follows:"

It should be noted that the "T" number is utilized in the description due to its universal use by many agencies as a common reference number for subdivisions. If there is no "T" number, it can be omitted from the description. Lot and concession numbers may also be included in the brackets in lieu of "T" number to better locate the development.

When both sanitary sewers and storm sewers are being applied for by the same applicant at the same time and that will essentially service the same area, approval for both is combined on the same certificate of approval. For these cases, the following wording is used:

"Sewers and appurtenances to be constructed in the ... "

#### 5.1.2 Location of Works

Location of the works is the next part of the overall description. This section should accurately indicate the location of the works so that they may be located in the field.

#### General Format

The location of sewers and watermains should be described in tabular form. This format indicates the street on which the works are to be located and their relative location on that street with respect to the nearest intersecting street as follows:

<u>Street</u>	<u>From</u>	<u>To</u>
Felbrigg St.	Approx. 120 m east of John St.	Elm Street

This example describes works that extend on Felbrigg Street from a point approximately 120 m east of the centre line of John Street to the existing works in Elm Street. (It is also a valid description if there is no existing works on Elm Street).

The above example, therefore, illustrates the following points:

- a) All measurements should be taken from the centre line of the nearest intersecting street;
- b) If the works are to be connected to the existing works at an intersecting street, quoting the distance from the centre line is not necessary;

- c) When quoting distances, the word "approximately" is placed before the distance; and

There should be adherence to the following:

- d) The works should not be described by a succession of intersecting streets such as:

<u>Street</u>	<u>From</u>	<u>To</u>
St. Clair Ave.	Avenue Rd.	Don St.
St. Clair Ave.	Don St.	Yonge St.

the location of each of the sewer or watermain should be indicated as follows:

<u>Street</u>	<u>From</u>	<u>To</u>
St. Clair Ave.	Avenue Rd.	Yonge St.

- e) All measurements should be scaled from the drawings to the nearest 1.0 m; and
- f) Only street names appearing on the drawings should be used in the description.

#### Special Cases

- a) Cul-de-sacs

In cases where the works are located on dead end streets with cul-de-sacs and the works extend from an intersecting street to (or from) the cul-de-sac, it is sufficient to describe the works as follows:

<u>Street</u>	<u>From</u>	<u>To</u>
Tap Court	Cul-de-sac	Bing Ave.

- b) Crescents

In many cases, particularly in subdivisions, a street may be encountered that will intersect another street at more than one location. In these instances, it should be indicated if it is the north, south, east, or west intersection that is being referred to in the description. For example:



<u>Street</u>	<u>From</u>	<u>To</u>
Moore Cres.	Rosedale Hgts. Dr. (west intersection)	Rosedale Hgts. Dr. (east intersection)

c) Easements

In cases where works are constructed in easements, it is a good practice to indicate the location of the easement such as Easement (Block A), Easement (between lots 1 and 2), etc. This will clarify the description as to which easement is being referred to.

d) Other

In instances where there are no identifiable street names or other specific reference points, a less detailed description would suffice and can be presented in paragraph form such as:

".. 200 mm diameter sanitary sewer and appurtenances to be constructed in the Crippled Creek Townhouse Development located at the intersection of Oak Road and Blade Street in the City of Small Falls, all in accordance with Plan No. 246-1 to 10, prepared by ... "

Since this format does not satisfy our objective of being able to locate the works in the field without the need of engineering plans, it should only be used in cases where the conventional format is inapplicable.

e) Circular Roads

Circular roads do not appear to fall in any of the aforementioned categories.

Should the sewer or watermain cover the full length of the road, the statement:

"all of Harness Crescent south of John Street"

may be used instead of a tabulated entry but must appear at the bottom of the table.

For other cases, where the works do not extend the full length of the road, N, S, E, and W legs of the road are to be designated and used in the tabulated description entry, such as:

<u>Street</u>	<u>From</u>	<u>To</u>
Page Avenue (N leg)	Approximately 100 m east of Page Avenue (E leg)	Page Avenue (E leg)



f) Sanitary and Storm Sewers

When sanitary and storm sewers (and forcemains) are combined on the same certificate, streets containing both sanitary and storm should only be described together under the title of "Sanitary and Storm". For streets with only one of the two sewers, they should appear either under "Storm" or "Sanitary" as follows:

<u>Street</u>	<u>From</u>	<u>To</u>
SANITARY AND STORM: Joe Street	Clarence Road	Bake Boulevard
SANITARY: Oak Street	River Road	Palace Court
STORM: Jasmine Street	Oak Street	Cul-de-sac

This format will eliminate unnecessary duplication of lines in the description.

g) Unnamed Streets

For new developments when the street names have not been finalized at the time of review, use of designation such as Street A, Court B, etc., are temporarily acceptable. However, when issuing the Certificate of Approval, a standard covering letter will also be issued requesting information on the final names when they are known. Upon receipt of these names, a revised certificate will be issued with the new names.

5.2. Description of treatment plants, pumping stations, storage, retention facilities etc.

- a) All components necessary to ensure either compliance with the sewage effluent objectives or to meet drinking water quality objectives must be listed and described;
- b) A separate paragraph must be used to describe each major component of the works;
- c) The components of the works should be described in the order they appear in the works process; for example collection followed by transmission;
- d) As a minimum, the works should be described in sufficient detail to ensure that sizing of the components and the proposed equipment satisfies the process design requirements.

Typically, the works description for each major component should:

- i) identify the component or number of similar components and provide some indication as to the type and function of that component(s), e.g. one (1) circular reactor-type primary clarifier, two (2) sludge transfer pumps, etc.,
- ii) describe the size of the component as a set of dimensions, a rated capacity and/or a design capacity, e.g. settling tank - length, width and depth, storage volume and design flow rate, pump - capacity at a specified total dynamic head, etc., and
- iii) list essential appurtenances, e.g. sludge rakes, scum troughs, decant systems, etc.

The description may also include:

- iv) materials of construction, and
  - v) a statement noting the point of discharge of that component; for example, discharging to the final polishing pond.
- e) Works that are not easily described e.g. fields used for spray irrigation, must be referenced by a plan;
  - f) All units must be metric and spelled out in full unless defined;
  - g) Numeric values must be reported to a realistic degree of accuracy and that degree of accuracy must be used throughout the description; and
  - h) The final effluent discharge point must be identified, e.g. Lake Ontario, municipal storm sewer on John Street, etc. This is normally done in the description of the disposal works, however, it may be included as part of the description for the final treatment step if the disposal works are not separately described.

**APPLICATIONS WHICH DO NOT SUPPLY ALL REQUIRED MATERIAL WILL BE RETURNED TO ALLOW THE APPLICANT TO SUBMIT A COMPLETE APPLICATION.**

## **PART IV TECHNICAL INFORMATION**

### **1. ENVIRONMENTAL IMPACTS**

#### **1.1 Sewage Works**

The most important aspects of any proposed sewage works are the disposal of final effluent and its impact on the receiver.

It is the responsibility of the proponent to: assess the assimilation capacity of the receiver, to derive from this assessment effluent quality criteria, and to have the criteria confirmed as compliance limits by the Technical Assessment Section of the appropriate Regional Office of the Ministry.

Any change in the effluent quality and/or volume resulting from the undertaking must be reviewed in terms of the receiver (surface water body, land area, ground water aquifer) and its assimilation capacity. In the case of an existing sewage treatment plant where the receiver assimilative capacity has been established, any works that may affect the performance of the treatment plant must be reviewed in terms of established effluent quality criteria and rated capacity of the treatment plant.

The assessment of the assimilative capacity of the receiver must be done at the beginning of the planning and design process as a part of problem identification. The results should serve as a basis of comparison of alternative solutions to the already identified problem.

The most important assumption that the process Engineer must make before designing a sewage treatment facility is to set the design objectives of average effluent quality required to consistently be within the effluent compliance limits.

This assumption should serve as a basis of comparison of alternative designs and their reliability in terms of compliance limits.

#### **1.2. Water Works**

Public health and environmental concerns require that treatability of raw water from the available water supply source and reliability of the process should be the basic design criteria for a water works. In addition, equipment should continuously achieve drinking water quality objectives.

The disposal of wastewater (backwash) generated by the operation of the water treatment plant is considered sewage disposal and must be



planned for and designed accordingly. This can be approved as part of the overall water treatment plant works but would require effluent criteria to be established for any discharge to the receiver.

### **1.3 Assimilative Capacity of the Receiving Water Body**

For new or expanded sewage treatment works or for wastewater disposal from a water works, the existing downstream use and assimilative capacity of the receiver must be identified and assessed. The requirements for the assimilative capacity study must be discussed with the Ministry's appropriate Regional Technical Assessment Sections. Although requirements may vary from site to site, in general the proponent should provide the following information:

- Limiting Conditions within the Receiving Water Body;
  - low flow conditions in the receiving water body, e.g. the 7Q20 for a stream, i.e. the 7-day average low flow occurring once in 20 years;
  - the 75th percentile background concentration for each parameter of concern;
  - the maximum allowable downstream increase for each parameter of concern, e.g. the difference between the background level and the Provincial Water Quality Objective (PWQO) in accordance with the Ministry Policies 15-01 and 15-02; and
  - a proposed wasteload allocation for the facility based on the entire watershed and watershed users (downstream/upstream).
- Actual Effluent Flow;
  - design daily/monthly flow or average daily/monthly flow for one year if the data is available.
- Actual Effluent Quality;
  - the maximum expected loading at design flow and highest concentration under normal operation for all parameters of concern in the final effluent.
- Impact Analysis;
  - methods used to reduce impact of the effluent on the receiving water body, e.g. use of diffusers, effluent and receiving water density

considerations, discharging at rates proportional to stream flow, etc.; and

- in-stream monitoring programs to ensure that information is available to assess acceptability of the effluent impact.
- Proposed Mixing Zone
  - The "mixing zone", defined as "the area of water contiguous to the point source where the water quality does not comply with the Provincial Water Quality Objectives", should be mapped out for the proposed maximum allowable discharge rate. The allowance of a mixing zone may depend on the sensitivity of the receiver. The restrictions regarding mixing zones should be confirmed with the appropriate Regional Technical Assessment Section.

#### **1.4. Assimilative Capacity of the Ground Water Aquifer**

For works with sewage effluent disposal on land that may have any impact on ground water aquifer, the proponent must undertake a ground water impact assessment. The requirements for the assimilative capacity study of ground water aquifer must be determined through discussions with the Ministry's appropriate Regional Technical Assessment Section.

Although the requirements for the impact assessment will vary from site to site, in general the proponent must report the following information:

- the expected discharge rate of contaminants to the ground water;
- the background levels of contaminants in the ground water;
- the estimated allowable amount of degradation based on the current and potential future uses of the ground water i.e. "reasonable use concept" - Ministry Policy 15-08;
- measures taken to reduce and prevent ground water contamination; and
- an appropriate monitoring program to assess the proposed control measures and downstream impacts.

## 2. DESIGN GUIDELINES

The following publications prepared by the Ministry, should be consulted in the design of water and sewage works:

- Guidelines for the Design of:
  - Water Treatment Works (April 1982)
  - Sewage Treatment Works (July 1982)
- Guidelines for the Design of:
  - Sanitary Sewage Systems (July 1985)
  - Storm Sewers (July 1985)
  - Water Distribution Systems (July 1985)
  - Water Storage Facilities (July 1985)
  - Servicing in Areas Subject to Adverse Conditions (January 1985)
  - Water Supply for Small Residential Developments (March 1985)
- Guidelines on Erosion and Sediment Control for Urban Construction Sites (May 1987)
- Urban Drainage Design Guidelines (April 1987)
- Interim Stormwater Quality Control Guidelines for New Development (May 1991)
- Stormwater Quality Best Management Practices (June 1991)

The Ministry is a member of the Great Lakes-Upper Mississippi River Board of Public Health and Environmental Managers, it utilizes recommended standards for sewage and water works of this organization, known as the "Ten States Standards".

All of the above publications should not be confused with regulations which must be complied with in order to obtain a Certificate of Approval. It is not the intention of the Ministry to stifle innovation. Whenever a designer can demonstrate that environmental and/or health conditions can be safeguarded by alternative approaches, such alternatives will be considered for approval.

To facilitate the review and approval process it is requested that the applicant, identify any design aspects in the submitted technical information, which are not in accordance with the above documents. In such instances the applicant should provide supporting documentation as to why a deviation from these guidelines is proposed.



### **3. DOCUMENTATION**

It is recognized that documentation of steps taken in the planning process and engineering design of sewage and water works varies with the size and complexity of the undertaking.

The design of complex works such as new water treatment plants or sewage treatment plants will involve the preparation of separate documents as follows:

- Environmental Study Report (ESR) where required by the approved Class Environmental Assessment;
- Preliminary Engineering Report;
- Design Brief (basis of detailed engineered design);
- Final Plans (engineering drawings);
- Specifications.

On the other hand, the design of watermain or sewer extensions may require only preparation of final plans which would contain a basis of design and specifications.

The information which should be submitted with the application of approval for sewage or water works is outlined below in the form of documents to be prepared for the design of complex works. However, it is not necessary to submit such separate documents provided all pertinent information is included in the submission.

When requesting approval which the proponent proposes be subject to the submission of final plans and specifications, the application should contain, as a minimum, the information described under the heading Preliminary Report.

### **4. INFORMATION REQUIRED FOR APPROVAL OF SEWAGE WORKS**

#### **4.1 PRELIMINARY REPORT**

Without limiting the scope of the preliminary report, it should, where pertinent, present the following information:

1. Description of the proposal, including a description of the existing sewage treatment facilities when applicable;
2. Discussion on assimilative capacity of the receiving water body, effluent quality criteria and compliance limits

(concentrations and loadings) confirmed by the Regional Technical Assessment Section;

3. Brief description of alternatives (methods of treatment, site locations, etc.) which have been assessed and the reasons for selecting the one recommended, including financial considerations. The evaluation of design alternatives is usually carried out during the planning stage as required by the Class Environmental Assessment and therefore appropriate sections of the Environmental Study Report (ESR) can be referenced;
4. Extent, nature, anticipated population and population densities of contributing areas, facilities proposed to be constructed, and provisions for extending the system to include additional areas (ESR where applicable);
5. Discussion of the effectiveness of extraneous flow reduction, water conservation programs and sewer use control as part of the alternative treatment (ESR where applicable);
6. Itemization and discussion of present and future domestic sewage flows, commercial, institutional, industrial sewage flows, and extraneous flows together with the peak sewage rates with due consideration being given to all the above-mentioned possible flow contribution for both present and future conditions (ESR where applicable);
7. Discussion of raw sewage characteristics and the effect of hauled wastes or toxic substances which may have shock loading impact or require special treatment. Wherever possible, the variation in sewage strength should be substantiated by data from sampling surveys or treatability studies extending over a sufficiently long period of time;
8. Discussion of adequacy of the proposed treatment facilities for the treatment of the specific wastewater under consideration to meet Ministry effluent criteria in terms of design objectives and non-compliance limits. Included in the discussion should be a summary of unit processes and the basic design parameters including operational reliability of key process units, unit redundancy, and back up reliability;
9. Description of proposed pumping facilities including location of the proposed pumping station and forcemain, number and capacities of duty and standby pumps; discussion of possible effects on existing receiving sewers, pumping stations or treatment plants and provisions for overflows and bypassing;
10. Discussion of anticipated impact of wet weather bypassing conditions, (i.e. possibility of frequencies, volumes, quality



and impacts on the receiving water) and approaches to be used to avoid or minimize bypassing;

11. Discussion of sludge management including sludge storage capacity and utilization or disposal program;
12. In case of sewage treatment plants and pumping stations, the information required to assess the need for stand-by power in accordance with the Appendix I of the Ministry publication entitled "Guidelines for the Design of Sanitary Sewage Systems, ....(July 1985)";
13. Discussion of proposed flow metering, sampling and monitoring systems. For bypass and overflow metering requirements, Ministry Regional staff should be contacted and the recommendations referenced in the application package.
14. Brief discussion of the location of all significant sewage works structures at the plant site from the standpoint of MOE Guidelines for Compatibility between Sewage Treatment Facilities and Sensitive Land Use; land use in surrounding areas; susceptibility to flooding; air contaminant emissions, advantages of recommended locations over other locations considered;
15. Discussion of the design criteria used for proposed storm and sanitary sewers including design flows.

**Note:** The Ministry prohibits the construction of new, combined storm and sanitary sewer systems and discourages the extension of existing ones. Before existing combined-sewer systems are extended, it should be ascertained whether or not ultimate sewer separation is envisaged.

Applications dealing with the approval of combined sewer systems should contain the information required for both sanitary and storm sewers applications. In addition, the location of all existing overflows of untreated sanitary sewage should be indicated on maps or exhibits accompanying the application. If a combined sewer is to be expanded its impact on downstream overflows including sewage treatment plant should be documented. No increased volume of overflows will be allowed;

16. Description of stormwater treatment and management systems including methods of analysis of stormwater flows; methods for stormwater source controls, retarding runoff, routing and regulating flows through and in the collection system; retention and detention of stormwater; proposed methods of treatment; and description of Water Quantity and Quality Targets as documented in Watershed and/or Sub-Watershed Plans.



If Watershed and/or Sub-watershed Plans are not developed other guidelines and/or plans should be used. These may include: Ministry of Natural Resources Fishery Plans, Conservation Authority's Erosion and Sediment Control Plans and the "Interim Stormwater Quality Control Guidelines for New Development". The particular Municipality or the local Conservation Authority should be contacted to establish the need for storm water management. Ministry Regional staff should be contacted to establish the need for stormwater quality control. All the recommendations given must be referenced at this point in the application package;

18. Discussion of the planning for any future extensions and/or improvements to the sewage works;
17. Plan(s) showing the following information, where pertinent:
  - (a) name of municipality;
  - (b) project title;
  - (c) scale;
  - (d) north point;
  - (e) datums used;
  - (f) municipal boundaries;
  - (g) general layout, drainage area and sizes of existing and proposed storm and sanitary sewers, and location of existing and proposed major works, sources of water supply, watermains, intakes, possible points of contamination (sewage treatment plant discharges, sewer overflows, etc.);
  - (h) existing and proposed development in the vicinity of major works;
  - (i) proposed general layout of major works (line diagrams and/or schematics may suffice);
  - (j) Process Flow Diagram (PFD) is required for the sewage treatment works. The PFD must include all treatment processes, direction of flow of all wastewater streams, recycle streams and waste streams and the location of all chemical addition points. The PFD must also show the maximum and average flow rate of all streams entering and leaving each component of the works as well as a mass balance for all design parameters around each treatment component.

#### 4.2 DESIGN BRIEF (Basis of Design)

A design brief should be submitted along with the plans and specifications summarizing the design criteria and presenting the design calculations used in sizing the various sewage works facilities.

When the preliminary report is not available the information usually contained in the preliminary report should be included in the design brief.

A design brief should contain, but not necessarily be limited to, the following:

**4.2.1 Sanitary Sewers:**

- name of municipality;
- project title;
- population served (immediate and future) and per hectare population densities;
- area served (immediate and future) in hectares;
- per capita sewage flows;
- infiltration allowances expressed in cubic meters per day per hectare;
- industrial and commercial flows;
- design flow rates - peak sewage flow, including infiltration plus industrial flow for local, interceptor and trunk sewers;
- capacity of the existing receiving sewers, pumping stations and treatment plant to receive the flow from the proposed sewers;
- type of private connections to sewers - is basement drainage allowed; are there still foundation drains (weeping tiles), sump pumps or eavesthroughs/downspouts connected to the existing contributory sewers;
- design criteria used for the proposed sewers including the required capacity, sewer source, sewer slope, roughness coefficient, pipe capacity, flow velocity when flow full, depth of flow and actual flow velocity at peak flow if depth of flow is less than 0.3 of the pipe diameter;
- minimum separation distance provided from watermains.

**4.2.2 Storm Sewers:**

- subdrainage areas;
- design rainfall frequency;
- design rainfall intensity;
- runoff coefficients;
- generated flows and capacity of sewers selected;
- capacity of the receiving watercourse or existing storm sewers at each discharge point to accept the anticipated design flows ;
- design criteria (as per sanitary sewers);

Note: The calculations and design criteria for sanitary and storm sewers may be presented in tabular form.



#### 4.2.3

#### Stormwater Management

- name and description of the receiving water body;
- drainage area;
- basis (Master Drainage Plan, Watershed Plan and/or Sub-Watershed Plan) of the proposal and the names of authorities (Municipality, Conservation Authority, Ministry of Natural Resources, Ministry of the Environment) who specified the stormwater management criteria and/or effluent quality criteria; receiver water temperature, minimum baseflows, maximum peak flows, development land use restrictions (i.e. maximum percent imperviousness), minimum buffer strips adjacent to watercourses, required level of treatment;
- outline of the overall design concepts including design storm events for quantity and/or quality control;
- description of the storm management works including minor and major stormwater conveyance systems and locations with respect to the flood plain, route of major storms and resultant elevations, controlled outfall and emergency overflow details;
- the methodology used for calculations (computer models, rational method, runoff coefficients etc.) including hyetographs, summary of design storms and flows generated for pre-development, post-development, post-development with control;
- minimum and maximum hydraulic and assimilative capacities of the receiving watercourse, swales, natural channels or existing storm sewers to accept the anticipated design flows;
- water balance calculations (for determining receiving stream baseflows);
- proposed type of storage (roof top, parking lot, underground storage - oversized pipe, super pipe, retention sewer, detention pond - wet, dry, infiltration pond) including the depth-storage-discharge relationship;
- proposed type of treatment; on-lot source controls, infiltration (i.e. perforated pipes, trenches, swales, basins, etc.); stormwater ponds (i.e. wet, extended wet, extended dry), wetlands, disinfection;
- description of control features (roof weirs, orifice plates, overflow weirs) including hydraulic calculations;
- overflow provisions for storms over the designated major storms (i.e., 1:100 year or Regional storms);
- temporary and permanent erosion and sediment control facilities;
- detailed description of operation and maintenance of the proposed works including an agreement between the municipality and the proponent outlining a maintenance program that contains the name of operating authority or the person responsible for the maintenance and operation.



#### 4.2.4 Sewage Pumping Stations:

- location of the proposed pumping station;
- population (immediate and future) in the contributing area;
- area serviced (immediate and future) in hectares;
- per capita sewage flows;
- design flow rates - peak design flow including infiltration and industrial and commercial wastes, for initial, design and future conditions;
- type of station and facilities provided;
- number and type of sewage pumps;
- capacities of the pumps under appropriate dynamic head conditions when operating alone and when operating in combination;
- type and power of motors. If variable speed motors are to be provided, step-by-step capacities should be given at the appropriate total dynamic heads;
- number of wet-well compartments and the detention times under minimum and peak design conditions;
- wet well operating level and its relationship to inlet sewer minimum flow velocity when inlet sewer is submerged;
- wet well overflow elevation in relation to basement elevations in the area upstream of the pumping station;
- details on any screening, grit removal or comminution facilities;
- type and method of operation of the pump control equipment and alarm system;
- length, size and type of material of forcemain;
- velocity in the forcemain under initial, design and future conditions, together with calculations of the total dynamic head requirements of the pumps;
- evaluation of transient pressure conditions;
- information required to assess the need for stand-by power in accordance with the Appendix I of the MOE publication entitled "Guidelines for the Design of Sanitary Sewage Systems, ....July 1985";
- capacity of overflow and/or by-pass facilities including frequency of anticipated overflows and name and description of the receiving water body;
- flow metering and recording equipment;
- miscellaneous equipment, including heating and ventilating, sump pumps.

Evidence should be presented that the existing receiving sewers, pumping station and sewage treatment plant are adequate to receive sewage from the proposed sewage pumping stations. If any downstream sanitary overflows exist, evidence also should be provided on their current frequencies and impacts and to demonstrate that they will not be aggravated.

#### 4.2.5

#### Sewage Treatment Plants:

- basic data on the volume and composition of the wastewater anticipated from the population and area to be served under the following headings:
  - (a) design period;
  - (b) area served (hectares);
  - (c) population served;
  - (d) population density;
  - (e) characteristics and quantity of sewage flow;
  - (f) infiltration;
  - (g) industrial waste water including an estimation of industrial flow quantity, major industrial categories, waste characteristics especially contaminants that may affect plant operations and status of sewer use control;
  - (h) storm water (combined sewers);
  - (i) total sewage flows (minimum, design, peak);
  - (j) total waste loadings;
- information on the receiving stream at the point of discharge including:
  - (a) name;
  - (b) flow data;
  - (c) present water usage;
  - (d) present water quality;
- process design calculations of all treatment units, i.e. velocities and surface settling rates in grit removal units; surface settling rates, solids loading rates, weir rates, depths and detention times in clarifiers; anticipated BOD and SS removals in primary and final clarifiers; organic loading to aeration tanks (lagoons, biological contactors, etc.) aeration rates, type of mixing, number and capacity of blowers or mechanical aerators; return sludge capacity, number and capacity of return, waste and raw sludge pumps; detention time provided by chlorine contact tank, point of chlorine addition, dosage and mixing; capacity of chlorination facilities; U.V. disinfection design parameters; phosphorus removal, dosage points, chemical handling, etc.; primary, chemical and waste sludge volumetric production rates; volatile solids loading rate to the primary anaerobic digester and detention time, heat exchanger capacity, digester mixing, volume of gas storage; sludge retention time of aerobic digester and capacity of air supply; volume of sludge holding tanks, sludge storage available, capacity of sludge thickening and dewatering equipment and its efficiency; sludge incineration facilities, backwash and filtration rates of effluent filters;



- flow metering, sampling and monitoring equipment;
- what will cause by-passing, capacity of by-passes and metering of by-pass flows;
- hydraulic calculations for all process streams within the sewage treatment plant, influent works and outfall sewer under minimum and maximum flow or pumpage rates, recommended parameters for outfall diffuser section and mixing zone;
- effect of recycle loadings from such secondary streams as digester supernatant, heat treatment decant liquor, sludge thickeners, vacuum filters, etc;
- where liquid or filtered sludge is to be hauled away from the site for utilization or final disposal, evidence should be provided that satisfactory disposal are available;
- if spray irrigation systems are proposed, evidence must be provided that the soil and foliage are suitable to accept the proposed applications rates without runoff;
- in cases where the proposed works is an extension to an existing plant, a description of the facilities at the existing plant should be provided, including pertinent process and hydraulic design data, as well as the adequacy of existing units in terms of current design criteria, or as an alternative, derating the capacity of the existing works;
- a list of air pollution and odour sources (i.e. open tankage, boiler stacks, internal combustion engines, incinerators, etc.) together with the distances from the points of emission to the property lines and the nearest private residence in support of the application for Approval (Air);
- where an existing plant is to be enlarged or modified a description should be provided addressing the steps to be taken to provide uninterrupted treatment during construction without the need for by-passing.

When the proposed works incorporate processes that are innovative or in an experimental stage, include equipment and materials where reliable data from full scale information are not available, the submission of the following information will also be necessary:

1. All existing data pertaining to the proposed process, equipment or material;



2. The results of any testing programs which have been undertaken by independent testing agencies, research foundations, universities, etc.;
3. A listing of any known full-scale applications of the proposed process / equipment / material giving a description of the type of application and the name and address of the person who could be contacted in regard to the application;
4. A discussion of the effects which failure of the proposed process / equipment / material would cause and what precautions would be taken to preclude a health hazard or non-compliance as a result of the failure;
5. A discussion of how the proposed process / equipment / material could be modified or replaced with a conventional system if failure occurred and how such a modification or replacement would be incorporated in the existing works, and liabilities associated with the proposal;
6. A description of the monitoring, testing and reporting program which the applicant would undertake during the experimental period; and
7. The duration of the proposed experiment.

#### **4.3 PLANS**

All plans for sewage works should bear the project title, the name of the municipality, and name of the development or facility being serviced, and should show the scale, north point, date, and the name of the Engineer and should bear the imprint of his/her registration seal.

Detail plans should consist of plan views, elevations, sections and supplementary views which, together with the specifications and general layouts, provide the working information for the contract and construction of the works. Dimensions and relative elevations of structures, the location and outline form of equipment, location and size of piping, water levels and ground elevations should be shown.

##### **4.3.1 Plans of Storm and Sanitary Sewers**

###### **4.3.1.1 General Plan**

A comprehensive plan of the existing and proposed sewage works should be submitted for projects involving new sewage systems or

substantial additions to existing systems. This plan should show the following:

- (a) Geographical features including drainage areas, existing and proposed streets, watercourses, location of all discharge points (proposed or existing), contour lines at suitable intervals, municipal boundaries, bench marks assumed or used, etc.;
- (b) Location and size of existing and proposed sewers;
- (c) Location and nature of existing sewage works structures and appurtenances affecting the proposed improvements;
- (d) Location and nature of proposed sewage works structures.

#### **4.3.1.2 Detail Plans**

The proposed and existing sewers (in the vicinity of the proposed sewers) should be shown in plan and profile. Profiles should have a horizontal scale of not more than 1:1000 and a vertical scale of not more than 1:100. The plan view should be drawn to a corresponding horizontal scale. Plans and profiles should show:

- (a) Location of streets and sewers;
- (b) Line of ground surface, shape, size, slope, material and class of pipe, length between manholes, and/or other appurtenances;
- (c) Location of appurtenances such as manholes, pumping stations, overflows, etc.;
- (d) All known existing structures which might interfere with the proposed construction, particularly watermains, gas mains, culverts, etc.;
- (e) Special detail drawings, made to scale to clearly show the nature of the design, should be furnished to show the following particulars: bedding details, manholes, service connections, bridge crossings, stream crossings, supporting existing services, trench widths, shoring, etc. For sewage forcemains additional details to be included are: typical thrust blocks, typical air and vacuum release valves, connection to the terminal manhole, surge suppressor, special connections, etc.;

#### **4.3.2 Plans of Sewage Works Structures**

(Treatment plants, Storm Water Management Systems, Pumping Stations, etc.)

##### **4.3.2.1 Site Plans**

For each proposed major sewage works facility, a site plan should be submitted showing the following:

- (a) The location of the major works and the extent of the area serviced by the facility, including municipal boundaries;
- (b) Size of the property to be used for the sewage works structure and nature of adjoining lands;
- (c) Topography of the property and adjoining lands including the elevation of the highest known flood levels;
- (d) Layout and size of the existing, proposed and future plant structures on the property showing the distances from property lines, structures, and private residences on adjoining properties.

##### **4.3.2.2 General Layout and Detail Plans**

For each proposed major sewage works facility, plans showing the following should be submitted:

- (a) Process Flow Diagrams (PFD). The PFD must include all treatment steps, direction of flow of all wastewater streams, recycle streams and waste streams and the location of all chemical addition points. The PFD must also show the maximum and average flow rate of all streams entering and leaving each component of the works as well as a mass balance for all design parameters around each treatment component;
- (b) Hydraulic profiles through treatment plant, pumping stations, etc. The profiles should be accurate and of adequate vertical scale to clearly show the top of tanks, channel and trough inverts, weirs and other features which directly affect the hydraulic gradient. The hydraulic gradient should be shown for minimum and maximum flow rates. For pumping stations, maximum, overflow and minimum water levels in the wet well should be shown;
- (c) Piping in sufficient detail to show the flow and the direction through the treatment plant and pumping



stations including by-pass and overflow lines;

- (d) Test borings and groundwater elevations within site limits;
- (e) Location of all chemical feeding equipment and points of chemical addition;
- (f) All appurtenances, specific structures, equipment, sources of air emissions, plant laboratory, etc. having any relationship to the sewage works major facilities;
- (g) Location, dimensions and elevations of all existing and proposed plant facilities;
- (h) Type, size, pertinent features, and manufacturer's rated capacity of all pumps, chemical feeders, blowers, motors and other mechanical devices;
- (i) The locations of existing or proposed wastewater sampling points, sampling devices, auto-analyzers and flow measuring devices;
- (j) Process and Instrumentation Diagram (P&ID) is required for the complete sewage treatment process. The P&ID must include all controls, piping arrangements, pumps, valves and equipment capacities;
- (k) Adequate description of any features not otherwise covered by the specifications.

#### **4.4 SPECIFICATIONS**

Complete technical specifications are required for sewage works projects. In the case of minor works such as minor storm or sanitary sewer extensions, these specifications can generally be noted on the drawings themselves. With more extensive works, separate specification documents will generally be required.

The specifications should include all construction information not shown on the drawings which will be required to inform the builder in detail of the design requirements as to the quality of materials and workmanship and fabrications of the project and the type, size, strength, operating characteristics and rating of equipment, allowable leakage in sewers and pressure testing of sewers and forcemains; the complete requirements for all mechanical and electrical equipment, including machinery, valves, piping, and pipe joints; electrical apparatus, wiring, and meters; laboratory fixtures and equipment; operating tools, construction materials; filter materials; miscellaneous appurtenances; chemicals to be

used; instructions for the testing of materials and equipment are necessary to meet design standards; operating tests for the completed works and component units; and programs for keeping existing works in operation without by-passing during the construction of new works.

## **5. INFORMATION REQUIRED FOR APPROVAL OF WATER WORKS**

### **5.1 PRELIMINARY REPORT**

Without limiting the scope of the preliminary report, it should, where pertinent, present the following information:

1. Description of the existing water supply, treatment, storage and distribution works and wastewater disposal facilities serving water works;
2. Brief description of alternatives (water supply, treatment, storage, site locations, etc.) which have been assessed and the reasons for selecting the ones recommended, including financial considerations. The evaluation of design alternatives is usually carried out during the planning stage as required by the Class Environmental Assessment and therefore appropriate sections of the Environmental Study Report (ESR) can be referenced;
3. Extent, nature, anticipated population of area to be serviced, facilities proposed to be constructed, and provisions for extending the system to include additional areas (ESR where applicable);
4. Itemization and discussion of present and future domestic water consumption figures, commercial and industrial usages, and fires flows used in sizing various components of the water works system (ESR where applicable);
5. Discussion of raw water quality available from the proposed source of supply.

Surface water quality should be substantiated by data from chemical and bacteriological sampling surveys extending over sufficiently long periods of time to establish the expected variations in water quality parameters. Ground water quality can generally be substantiated by chemical and bacteriological sampling during well pumpage tests.

Raw water quality and treated water quality analysis should contain all parameters identified as "Ontario Drinking Water Objectives and Other Substances of Concerns" in Table 1 of the



Ministry publication "Drinking Water Objectives".

When experience and existing data indicate that particular substances (e.g. radionuclides, pesticides known to be not used in the area of water supply, etc,) are consistently absent from a water supply or below level of concern, the District Officer may agree to alter the frequency of sampling and parameters required for analysis. The proponent may request relaxation of the requirement for water quality analysis of some of the parameters contained in table 1 of the "Drinking Water Objectives" during the pre-submission consultation stage. Such a request must be supported by the evidence of submitted information.

The parameters analyzed should also include, when appropriate, such parameters as conductivity, index of water stability etc. which are not listed as drinking water objectives, but may be considered essential to characterize the water source or the need for specific treatment;

6. Discussion of raw water quantity available from the proposed source of supply.

A copy of the application submitted for a Permit to Take Water (as required under the OWRA) must be part of the application package.

Results of studies to determine the quantity of water available should be documented. In the case of supply requirements on major surface watercourses such studies may not be required. On the other hand, perennial ground water well yields must be clearly established.

For all groundwater supply systems the hydrogeologist's report must be provided stating the perennial yield, maximum short-term yields (i.e. over 12 hours, 24 hours, 1 week, 90 days, etc.) and recommended pump sizing based on a hydrogeologist's rating of the long term yield of the well. This report should also deal with possible interference with other existing wells in the area and contain all information required for a Permit to Take Water;

7. Discussion of adequacy of the proposed treatment facilities for the treatment of the specific raw water under consideration on the basis of a treatability study. Included in this discussion should be a summary of the design parameters to be used with the unit processes, such as, proposed chemicals additions, equipment capacities, detention times, surface settling rates, filtration rates, backwash rates, etc. including operational reliability of key process units, unit redundancy, back up reliability and zebra mussels



control system;

8. Discussion of the various waste streams from the treatment process, their volume, proposed treatment and points of discharge. All waste streams are to be treated to the same effluent quality as would be required for sewage discharges to the same receiving water body. For clarification of this requirement, the staff of the Ministry Regional Office should be contacted. Details of those discussions are to be included in the application package;
9. Description of proposed pumping facilities including low-lift, high-lift and booster pumping stations. The number and capacity of duty and standby pumps should be itemized. The ability of the system to supply water during power failures through either standby power facilities and/or elevated storage systems should be discussed;
10. Discussion of proposed metering, sampling and monitoring equipment;
11. Assessment of requirements for storage and discussion of how these requirements will be satisfied with the proposed facilities. Reference should be made to the Ministry "Guidelines for the Design of Water Storage Facilities (July 1985)";
12. Brief discussion of the locations of all significant water works structures from standpoint of proximity to residences, industries and other establishments; presence of any potential sources of contamination, or other factors which may influence the quality of the water supply or interfere with the effective operation of the water works system; possibility and likely effects of flooding; advantages of recommended locations over other locations considered (if applicable the appropriate sections of the ESR can be referenced);
13. Discussion of the design criteria used for proposed watermains including design flows, "C" factors, alternative materials, minimum sizes, minimum and maximum distribution pressures, minimum working pressure of pipe, minimum depth of cover, minimum separation distance provided from sewers and other utilities, etc.;
14. Discussion of the planning for any future extensions and/or improvements to the system.
15. Plan(s) showing the following information, where pertinent:
  - (a) name of municipality;
  - (b) project title;

- (c) scale;
- (d) north point;
- (e) datums used;
- (f) municipal boundaries;
- (g) general layout and sizes of existing and proposed watermains and location of existing and proposed major works, sources of water supply, watermains, intakes, possible points of contamination (sewage treatment plant discharges, sewer overflows, etc.);
- (h) existing and proposed development in the vicinity of major works;
- (i) proposed general layout of major works (line diagrams and/or schematics may suffice);
- (j) Process flow diagrams (PFD) are required for the water treatment works. The PFD must include all treatment steps, direction of flow of all treated and raw water streams, recycle streams and waste streams and the location of all chemical addition points and sampling points. The PFD must also show the maximum flow rate of all streams entering and leaving each component of the works as well as a mass balance for all design parameters around each treatment component.

## 5.2 DESIGN BRIEF (Basis of Design)

A design brief should be submitted along with the plans and specifications summarizing the design criteria and presenting the design calculations used in sizing the various water works facilities.

In the case of minor watermain extensions where the minimum sizing dictates, that is 150 mm (6-inch) diameter, such calculations are generally not required. If the designer proposes using less than 150 mm (6-inch) diameter watermain for watermains not required to carry fire flow or the supply capability of the existing system is marginal or the proposed extension is quite extensive, the design criteria and design calculations should be forwarded. Designers are also to clarify how the performance limitations will be conveyed to the owner.

In the case of intake works, low-lift and high-lift pumping stations, treatment works, well supplies and storage facilities, a design brief will be required.

When the preliminary report is not available the information usually contained in the preliminary report should be included in the design brief.

A design brief should contain, but not necessarily be limited to, the following:



- (a) Population served (immediate and future), and per hectare (acre) population densities;
- (b) Area served (immediate and future) in hectares (acres);
- (c) Per capita water consumption (average, maximum day and peak rate), industrial and commercial usages;
- (d) Fire flow requirements;
- (e) Design flows used for sizing intakes, wet well, pumps, treatment process units, storage and distribution facilities;
- (f) Reserve capacity available in existing systems or proposed capacity of new system to meet anticipated demands;
- (g) Summary of design criteria used for intakes, pumping stations, treatment process units, storage facilities and distribution systems;
- (h) Design calculations used in sizing various portions of the water works system, including process design and hydraulic calculations;
- (i) Summary of capacities provided in the various components of the proposed system i.e. rapid mix, flocculation and settling tanks capacities, retention times, unit loadings, filter area and filtration rates, backwash rate, feeders or chemical metering pumps capacities and ranges;
- (j) Proposed flow metering system, including raw water supply backwash water flow rate, individual units filtration rates and treated water supply;
- (k) Proposed treated water quality monitoring program, including laboratory equipment, continuous automatic water quality analyzers, sampling points, frequency of sampling and calibration procedures;
- (l) Proposed automation and back up procedures.

When the proposed works incorporate processes that are innovative or in an experimental stage, include equipment and materials where reliable data from full scale information are not available, the submission of the following information will also be necessary:

- 1. All existing data pertaining to the proposed process, equipment or material;
- 2. The results of any testing programs which have been undertaken by independent testing agencies, research foundations, universities, etc.;
- 3. A listing of any known full-scale applications of the proposed process / equipment / material giving a description of the type of application and the name and address of the person who could be contacted in regard to the application;



4. A discussion of the effects which failure of the proposed process / equipment / material would cause and what precautions would be taken to preclude a health hazard or non-compliance as a result of the failure;
5. A discussion of how the proposed process / equipment / material could be modified or replaced with a conventional system if failure occurred and how such a modification or replacement would be incorporated in the existing works, and liabilities associated with the proposal;
6. A description of the monitoring, testing and reporting program which the applicant would undertake during the experimental period;
7. The duration of the proposed experiment.

### **5.3 PLANS**

All plans for water works should bear the project title showing the name of the municipality, name of the development or facility being serviced; and should show the scale, north point, date, and the name of the Engineer and should bear the imprint of his/her registration seal.

Detail plans should consist of plan views, elevations, sections and supplementary views which, together with the specifications and general layouts, provide the working information for the contract and construction of the works. Dimensions and relative elevations of structures, the location and outline form of equipment, location and size of piping, water levels and ground elevations should be shown.

#### **5.3.1 Plans of Watermains**

##### **5.3.1.1 General Plan**

A comprehensive plan of the existing and proposed water works should be submitted for projects involving new water systems or substantial additions to existing systems. This plan should show the following:

- (a) Geographical features including drainage areas, existing and proposed streets, watercourses, contour lines at suitable intervals, municipal boundaries, etc.;
- (b) Location and size of existing and proposed watermains;

- (c) Location and nature of existing water works structures and appurtenances affecting the proposed improvements;
- (d) Location and nature of proposed water works structures.

#### **5.3.1.2 Detail Plans**

The proposed and existing watermains (in the vicinity of the proposed watermains) should be shown in plan and profile. Profiles should have a horizontal scale of not more than 1:1000 and a vertical scale of not more than 1:100. The plan view should be drawn to a corresponding horizontal scale. Plans and profiles should show:

- (a) Location of streets and watermains;
- (b) Line of ground surface, size, material and class of pipe, length between hydrants, valves and/or other appurtenances;
- (c) Location of appurtenances such as hydrants, valves, blow-offs, meter chambers, etc.;
- (d) All known existing structures which might interfere with the proposed construction, particularly storm and sanitary sewers, gas mains, culverts, etc.
- (e) Special detail drawings, made to scale to clearly show the nature of the design, should be furnished to show the following particulars: typical hydrant installations, bedding details, typical service connections, chambers, bridge crossings, stream crossings, typical thrust blocks, typical air release valve and blow-off valve installations, etc.

#### **5.3.2 Plans of Water Works Structures** (Wells, Intakes, Treatment Plants, Storage, Pumping Stations, etc.)

##### **5.3.2.1 Site Plans**

For each proposed major water works facility, a site plan should be submitted showing the following:

- (a) The location of the major works and the extent of the area serviced by the facility, including municipal boundaries;
- (b) Size of the property to be used for the water works structure;
- (c) Topography of the property and adjoining lands including the elevation of the highest known flood levels;
- (d) Location of all sources of potential pollution which could effect the water quality;



- (e) Layout and size of the existing, proposed and future plant structures on the property showing the distances from the structures on adjoining properties.

#### 5.3.2.2 General Layout and Detail Plans

For each proposed major water works facility, plans showing the following should be submitted:

- (a) A copy of the well drilling log and schematic diagrams showing details of well construction including elevations of geological formations, water levels, proposed pump levels, well screen data including well screen entrance velocities, etc.;
- (b) Process Flow Diagrams (PFD). The PFD must include all treatment steps, the direction of flow of all water streams, recycle streams and waste streams and the location of all chemical addition points and all sampling points. The PFD must also show the maximum flow rate of all streams entering and leaving each component of the works as well as a mass balance for all design parameters around each treatment component;
- (c) Hydraulic profiles through intake works, treatment plants, pumping stations, etc. The profile should be accurate and of adequate vertical scale to clearly show the top of tanks, weirs and other features which directly affect the hydraulic gradient. The hydraulic gradient should be shown for minimum and maximum flow rates. For intake works maximum, normal and minimum water levels of the source and their effects on low-lift pump should be shown;
- (d) Piping in sufficient detail to show the flow and the direction through the treatment plants and pumping stations including by-pass and waste lines;
- (e) Test borings and groundwater elevations within site limits;
- (f) Location of all chemical storage areas, feeding equipment points of chemical addition and sampling taps;
- (g) All specific structures, equipment, waste disposal units and points of discharge, having any relationship to the water works major facilities or located in their vicinity;
- (h) Location of laboratory facilities, sanitary or other facilities, such as lavatories, showers, toilets and lockers;
- (i) Location, dimensions and elevations of all existing and proposed plant facilities;
- (j) Type, size, pertinent features, and manufacturer's rated capacity of all pumps, chemical feeders, blowers, motors and other mechanical devices;



- (k) The locations of existing or proposed raw and treated water sampling points, sampling devices, auto-analyzers and flow measuring devices;
- (l) Process and Instrumentation Diagram (P&ID) is required for the complete water treatment process. The P&ID must include all controls, piping arrangements, pumps, valves and equipment capacities;
- (m) Adequate description of any features not otherwise covered by the specifications.

#### **5.4 SPECIFICATIONS**

Complete technical specifications are required for water works projects. In the case of minor works such as watermain extensions, these specifications can generally be noted on the drawings themselves. With more extensive works, separate specification documents will generally be required.

The specifications should include all construction information not shown on the drawings which will be required to inform the builder in detail of the design requirements as to the quality of materials and workmanship and fabrications of the project and the type, size, strength, operating characteristics and rating of equipment, allowable leakage and pressure testing of watermains; disinfection procedures; the complete requirements for all mechanical and electrical equipment, including machinery, valves, piping, and jointing of pipe; electrical apparatus, wiring, and meters; laboratory fixtures and equipment; operating tools, construction materials; filter materials such as stone, sand, gravel and anthracite; miscellaneous appurtenances; appropriate standards for chemicals to be used in drinking water treatment; instructions for the testing of materials and equipment are necessary to meet design standards; operating tests for the completed works and component units; and programs for keeping existing works in operation during the construction of new works.

## **APPENDIX I**

### **APPROVALS LEGISLATION OVERVIEW**





## APPROVALS LEGISLATION OVERVIEW

It is the proponent's responsibility to be aware of, and to understand the legal requirements of the Ontario Water Resources Act (OWRA) and other applicable legislation.

### 1. ONTARIO WATER RESOURCES ACT (OWRA)

The following provides a summary of some key elements of the OWRA as it relates to the approvals process. The summary is not complete and reference should be made to the Act for a comprehensive review of all its requirements.

#### 1.1 Definitions

Section 1 of the OWRA states in part:

"Municipality" means the corporation of a county, metropolitan area, regional area, district area, city, town, village, township or improvement district and includes a local board thereof and a board, commission or other local authority exercising any power with respect to municipal affairs or purposes, including school purposes, in an unorganized township or unsurveyed territory;

"owner means a municipality or person having authority to construct, maintain, operate, repair, improve or extend water works or sewage works;

"person" includes a municipality;

"sewage" includes drainage, storm water, commercial wastes and industrial wastes and such other matter or substance as is specified by regulations made under clause 44(1)(i);

"sewage works" means any works for the collection, transmission, treatment and disposal of sewage or any part of any such works, but does not include plumbing or other works to which the regulations made under clause 44(2)(a) apply;

"waters" means a well, lake, river, pond, spring, stream, reservoir, artificial watercourse, ground water or other water or

watercourse;

"water works" means any works for the collection, production, treatment, storage, supply and distribution of water, or any part of any such works, but does not include plumbing or other works to which regulations made under clause 44(2)(a) apply.

## 1.2 Water Works

The authority for water works approval is contained in section 52(1) of the Act. This section requires that:

No person shall establish, alter, extend or replace new or existing water works except under and in accordance with an approval granted by a Director.

The approving Director is a designated employee within the Approvals Branch of the Ministry of the Environment.

Also, section 52(7) states:

No person shall use or operate water works for which an approval is required under subsection (1) unless the required approval has been granted and complied with.

In accordance with section 52(9) the above requirement to obtain an approval does not apply:

- (a) to a water works to be used only for supplying water, for agricultural, commercial or industrial purposes, that is not required under any act or regulation to be fit for human consumption;
- (b) to a water works not capable of supplying water at a rate greater than 50,000 litres per day;
- (c) to a privately owned water works to be used to supply water only for five or fewer private residences; and
- (d) to such water works as may be exempted therefrom by regulations made under this Act.

Failure to comply with these requirements is considered to be a violation of the Act and therefore subject to penalties as specified in the Act.

1.2.1

**Permit to Take Water**

Section 34 of the Act requires that "no person shall take more than a total of 50,000 litres of water in a day" from ground and/or surface waters "without a permit issued by the Director."

The Regional Offices of the Ministry are responsible for administration of Permits to Take Water.

If a Permit to Take Water is required for the proposed works, then the proponent submits an application to the Regional Technical Assessment Section, and receives a Permit to Take Water before the application for approval of water works under Section 52 OWRA is submitted. The application for Permit to Take Water must include all of the required supporting documentation (i.e. design brief, hydrology report, construction report, water quality analysis, etc.)

1.3

**Sewage Works**

The authority for sewage works approval is contained in section 53(1) of the Act. This section requires that:

*No person shall establish, alter, extend or replace new or existing sewage works except under and in accordance with an approval granted by a Director.*

As stated above, the approving Director is a designated employee within the Approvals Branch of the Ministry.

Also, section 53(5) states:

*No person shall use or operate sewage works for which an approval is required under subsection (1) unless the required approval has been granted and complied with.*

According to Section 53(6) the above requirement to obtain an approval does not apply:

- (a) to a sewage works from which sewage is not to drain or be discharged directly or indirectly into a ditch, drain or storm sewer or a well, lake, river, pond, spring, stream, reservoir or other water or watercourse;
- (b) to a privately-owned sewage works designed for the partial treatment of sewage that is to drain or be discharged into a sanitary sewer;



- (c) to a privately-owned sewage works serving only five or fewer private residences;
- (d) to a sewage works the main purpose of which is to drain agricultural lands;
- (e) to a drainage works under the Drainage Act, the Cemeteries Act, the Public Transportation and Highway Improvement Act or the Railways Act;
- (f) to such sewage works as may be exempted therefrom by regulations made under this Act,

but this section does apply to a sewage works for the distribution of sewage on the surface of the ground for the purpose of disposing of the sewage.

Section 53(6)(a) above essentially excludes sewage systems having a subsurface disposal and all associated collection works from the requirements of approval under section 53 of the OWRA. Such works would, however, require approval under Part VIII of the Environmental Protection Act (EPA). Similarly other works that are exempted from OWRA may require approval under other legislation.

Failure to comply with these requirements is considered to be a violation of the OWRA and therefore subject to penalties as specified in that Act.

#### 1.3.1 Hearing Requirements for Sewage Works

Sections 54 and 55 of the OWRA provide for mandatory and discretionary public hearings before granting approval for sewage works. If the works cross municipal boundaries, a public hearing under section 54 is mandatory. If the works do not cross municipal boundaries but are expected to have significant public interest, the Director may require a public hearing under section 55.

It is important to note, however, that the use, operation, establishment, alteration or extension of sewage works approved under the Environmental Assessment Act (EAA) by virtue of the Municipal Engineers Association Class Environmental Assessment for Municipal Sewage and Water Projects (commonly known as the MEA Class EA, and approved by O.C. No. 836/87) is exempt from the provisions of sections 54(1) and 55(1) of the OWRA requiring or permitting a hearing. This exemption is provided by Ontario Regulation 207/87.

Sewage works which are to be undertaken privately and to remain privately owned, or which are to be conveyed to the municipality for ownership and/or operation once they are completed, are subject

to sections 54(1) and 55(1) of the OWRA requiring or permitting a hearing. Works financed and built by a municipality or a private developer acting as an agent of a municipality, are activities under MEA Class EA and, therefore subject to the EAA. Accordingly, such works are not subject to the OWRA hearing requirements.

#### 1.4 O.REG. 815/84 - Plumbing Code

The Ontario Plumbing Code (OPC) is written under the authority of clause 75(3)(a) of the OWRA and is administered by the Ministry of Housing.

It should be noted that the definitions of sewage works and water works under Section 1, OWRA specifically exclude "...plumbing and other works to which regulations made under clause 75(3)(a) apply." Essentially, the OPC covers all piping within a building/structure and external piping on private property up to the point to disposal/supply. Therefore, if sewage works or water works are included within the definition of plumbing in the OPC, the works are exempt from the approval requirements of sections 52 and 53, OWRA.

Further, sewage works for the purposes of storm water management which will be located on municipal or private property normally are subject to the approval requirements of section 53 of the OWRA, as these are not considered plumbing under the OPC.

#### 1.5 Approval of Water and Sewage Works

According to section 53(4), if it is in public interest to do so, the Director may:

- (a) refuse to grant the approval;
- (b) grant the approval on such terms and conditions as the Director considers necessary;
- (c) impose new terms and conditions to the approval;
- (d) alter the terms and conditions of the approval;
- (e) revoke or suspend the approval.

However, should the Director decide to do any of the above, Section 100 of the OWRA requires that he/she provide written notice of his/her intentions with reasons. This notice is appealable to the Environmental Appeal Board provided that the appeal is filed within 15 days of receipt of the notice.



If the Director's decision is appealed, the decision of the Director remains effective pending the outcome of the appeal, unless an exemption is granted by the Environmental Appeal Board. Therefore, all requirements of the decision are legally enforceable, even when under appeal, unless the Board decides otherwise.

## 1.6 Control Orders

In addition to the approval of water and sewage works, the Ministry can issue Control Orders to owners of the works requiring them to undertake remedial measures to alleviate effects of impairment of quality of water, pursuant to sections 17 and 18 of the OWRA. A Control Order generally is issued by the respective Regional Director and may also be subject to public consultation prior to its issuance.

## 2. ENVIRONMENTAL ASSESSMENT ACT (EAA)

An approval under the OWRA cannot be issued until the requirements of the EAA have been met.

Section 6(1) of the EAA states, in part:

*Where a proponent is required under this Act to submit to the Minister an environmental assessment of the undertaking,*

- (a) a licence, permit, approval, permission or consent that is required under any statute, regulation, by-law or other requirement of the Province of Ontario, an agency thereof, a municipality or a regulatory authority, in order to proceed with the undertaking shall not be issued or granted; .....

*unless,*

- (c) the environmental assessment has been submitted to and accepted by the Minister; and,
- (d) the Minister has given approval to proceed with the undertaking.

For most municipal undertakings requiring approval under the OWRA this approval requirement under the EAA can be satisfied by completing a planning process as described in the approved document



entitled "Class Environmental Assessment for Municipal Sewage and Water Projects".

Water and sewage works which are to be undertaken privately and are to remain privately owned or operated are not subject to the requirements of the EAA, unless specifically designated.

### 3. ENVIRONMENTAL PROTECTION ACT (EPA)

This Act provides for the protection and conservation of the natural environment. Together with the OWRA, the EPA provides the principal basis for the authority of the Ministry. Parts of the EPA which deal with the management of air quality, solid waste disposal and sewage systems may apply to the sewage works or water works for which approval is required under OWRA.

#### 3.1 Contaminant Discharges to Air

Part II, section 9(1) of the EPA stipulates that:

*No person shall, except under and in accordance with a certificate of approval issued by the Director,*

- (a) construct, alter, extend or replace any plant, structure, equipment, apparatus, mechanism or thing that may discharge or from which may be discharged a contaminant into any part of the natural environment other than water;...*

For any source of air contaminant (for example, odours from a grit chamber or aeration tanks, incinerator emissions or if standby power internal combustion engines are to be provided, for any sewage or water works), the requirement of section 9 of the EPA must be satisfied. This involves a separate application for an "Air" approval to be submitted to the Director (Approvals Branch).

Ontario Regulation 308, under the EPA, specifies the maximum allowable concentration of air contaminants at the point of impingement. Compliance is achieved only if the concentrations of various contaminants discharged from the applicants source of emissions are less than the maximum concentrations stipulated in Schedule 1 of Regulation 308, at the point of impingement. Typical points of impingement are the property line and all critical receptors, such as air intakes to buildings.

### 3.2 Waste Management

The Part V of the EPA is the primary legislative control on waste management.

Part V, section 25 of the EPA sets out the following definitions:

- (d) "waste" includes ashes, garbage, refuse, domestic waste, industrial waste, or municipal refuse and such other wastes as are designated in the regulations;
- (e) "waste disposal site" means any land or land covered by water upon, into, in or through which, or building or structure in which, waste is deposited or processed and any machinery or equipment or operation required for the treatment or disposal of waste;
- (f) "waste management system" means facilities, equipment and operations for the complete management of waste, including the collection, handling, transportation, storage, processing and disposal thereof, and may include one or more waste disposal sites.

Section 26 of the EPA further states that:

*"This Part does not apply to the storage or disposal by any person of his domestic wastes on his own property unless the Director is of the opinion, based on reasonable and probable grounds, that such storage or disposal is or is likely to create a nuisance, or to any sewage or other works to which the Ontario Water Resources Act or the regulations thereunder apply."*

Therefore, all works within the boundaries of the sewage treatment plant including any sludge treatment and disposal on the site of the sewage works, are subject to the requirements of section 53 OWRA. Any residual waste materials sent off-site become wastes which are subject to the requirements of Part V of the EPA.

Part V, section 27 of the EPA requires any waste disposal site such as a landfill, transfer station, processing site or incinerator and any waste management system (i.e. waste transportation) to obtain formal Ministry approval through a Certificate of Approval before being established or changed.

Ontario Regulation 309, under the EPA, lists definitions related to waste disposal sites and systems and specifies minimum standards of



performance. Among those applying to sewage works, it defines processed organic waste as "...waste that is predominantly organic in composition and has been treated by aerobic or anaerobic digestion, or other means of stabilization and includes residual from sewage works that are subject to the provisions of the Ontario Water Resources Act". It also defines organic soil conditioning as "...the incorporation of processed organic waste in the soil to improve its characteristics for crop or ground cover growth".

Specific guidelines for the disposal of residual sewage treatment plant sludge on agricultural lands have been developed by the Ministry in conjunction with the Ministry of Agriculture and Food and the Ministry of Health. The "Guidelines for Sewage Sludge Utilization on Agricultural Lands" (Guidelines) set out the application rates and other conditions relating to the spreading of treated sludge. The District Officer in each of the Ministry's District Offices has been designated as the Approving Director for the organic soil conditioning sites.

In order to haul processed organic waste, either liquid or solid, a waste management system approval is required under Part V, Section 27 of the EPA. Applications for approval for organic waste management systems are also dealt with by the District Officer.

When dewatered sludge solids and incinerator ash are to be disposed of in a municipal landfill, an approval under section 27 for the receiving site is also required. Applications for approval for those sites which require a public hearing, or which are subject to the EAA (or were when originally approved) will be processed by the Waste Sites and Systems Unit for approval by the Director of the Approvals Branch. The Regional Director deals with applications for sites not requiring public hearing, or which are not subject to EAA.

Where a waste disposal site involves the discharge of sewage (drainage) to surface waters, or a sanitary sewer connection to the site for a leachate transport, an approval of sewage works is required by the Director (Approvals Branch) under Section 53 of the OWRA.

### 3.3 Sewage Systems

Part VIII, section 74 of the EPA defines "sewage system" as:

- (a) a privy, a privy-vault, a holding tank or a toilet other than a toilet to which regulations made under clause 75(3)(a) of the OWRA apply;
- (b) a sewage works from which sewage is not to drain or be discharged directly or indirectly into a ditch,



drain or storm sewer or a well, lake, river, pond, spring, stream, reservoir or other water (other than ground water) or watercourse;

- (c) a privately-owned sewage works serving only five or fewer private residences; or
- (d) any other facility or land for the reception, treatment, transportation or disposal of sewage,

but does not include,

- (e) a sewage works to which subsection 53(1) of the OWRA applies;
- (f) a privately-owned sewage works designed for the partial treatment of sewage that is to drain or be discharged to a sanitary sewer;
- (g) a sewage works the main purpose of which is to drain agricultural lands;
- (h) a drainage works under the Drainage Act, the Cemeteries Act, the Public Transportation and Highway Improvement Act or the Railways Act;
- (i) plumbing as defined in the regulations under the OWRA; or
- (j) a holding tank to which regulations made under clause 176(3)(a) or (b) apply.

Section 76 of the EPA stipulates that:

No person shall construct, install, establish, enlarge, extend or alter,...

- (a) any building and structure in connection with which a sewage system will be used if the use of the building or structure so constructed, installed, established, enlarged, extended or altered will or is likely to affect the operation or effectiveness of the sewage system; or

- (b) any sewage system,

unless a certificate of approval for the construction, installation, establishment, enlargement, extension or alteration of the sewage system has been issued by the Director.

Certain sewage works exempted from the approvals requirements of section 53(1), OWRA do require a Certificate of Approval and a Use Permit under Part VIII, EPA. For example, those works which are exempted from OWRA under section 53(6)(a) and (c), are subject to Part VIII, EPA, since they are included in the definition of a sewage system in section 74(b) and (c), EPA.

Over the years, Part VIII sewage systems have become synonymous with on-site sewage systems (i.e. septic tank and leaching beds) which are regulated by Ontario Regulation 374/81 - Sewage Systems. However, Part VIII covers more than those systems regulated by O.Reg. 374/81 (i.e. domestic septic tank and leaching beds) and includes any sewage system (or sewage works) which discharges to the subsurface environment via an infiltrative surface which is not the surface of the ground (i.e. infiltrative surface cannot be seen).

Applications for a Certificate of Approval and a Use Permit may be obtained from the local Health Unit or the District Office of the Ministry.

Particular attention should be paid to section 76(a) of the EPA which requires that a Certificate of Approval be obtained before a building/structure is constructed, altered, enlarged, etc., if that building/structure will be or is serviced by a sewage system.

#### 4. NIAGARA ESCARPMENT PLANNING AND DEVELOPMENT ACT (NEPDA)

The purpose of this Act is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a continuous natural environment. Further, the NEPDA must ensure that only such development occurs as is compatible with the natural environment.

An approval under the OWRA for the proposed works located in the area of development control as defined by Ontario Regulations cannot be issued until the requirements of the NEPDA have been met.

Subsection 24(3) of the NEPDA states:

- (3) No building permit or other permit relating to development shall be issued in respect of any land, building or structure within an area of development control, unless a development permit has been issued under this Act relating to such land, building or structure, and no such building or other permit shall be issued that does not conform to the development permit.

The Niagara Escarpment Commission is responsible for issuing Development Permits.





## **APPENDIX II**

### **ENVIRONMENTAL POLICIES**



## Environmental Policies

The Ministry is responsible for developing and implementing the policies of the Ontario Government to protect the natural environment and manage waste. These policies are contained in the Manual of Environmental Policies and Guidelines (the Manual). Copies of the Manual may be obtained from the Information Services Branch, Publications Ontario, 880 Bay Street, Toronto, Ontario, M7A 1N8, Toll-free phone number 1-800-668-9938. The Manual may also be accessed through any of the Ministry Regional or District offices.

As a general rule, any proposed sewage and water works must be in compliance with these policies. In the case of some of the policies, formal procedures for a deviation from policy are outlined.

The following is a brief summary of the policies which are relevant to water and sewage works for which approval under the OWRA is required, along with a brief synopsis of each policy. To ascertain the complete text of the policy reference should be made to the Manual and then Ministry staff may be contacted for further clarification.

### **02-03 FINANCIAL ASSURANCE**

In accordance with section 130 of the EPA, financial assurance will be required for approvals issued under sections 52 and 53 of the OWRA for: private communal sewage, and water works in organized and unorganized areas where there is no agreement with the local government agency or the Ministry of Municipal Affairs to take over the works in the event of owner's default. Guidelines are provided for calculation of the amount of financial assurance required.

### **07-05 GUIDELINES FOR COMPATIBILITY BETWEEN SEWAGE TREATMENT FACILITIES AND SENSITIVE LAND USES**

This policy is intended to minimize the effect of odours emanating from municipal and private sewage treatment works on sensitive adjacent land uses.

Separation distances are recommended in keeping with the size and type of the proposed works. Works with a capacity equal to or less than 25,000 m<sup>3</sup>/d have a recommended separation of 150 m and a minimum separation of 100 m. Works with a greater capacity should be assessed on a case by case basis with a minimum separation of 100 m. Waste stabilization ponds have a desirable separation of between 100 and 400 m depending on the type of pond and characteristics of the waste. When new



facilities or major enlargements are proposed, an adequate buffer should be acquired as part of the project in order to avoid imposing constraints on surrounding land use.

**08-01      LEVELS OF TREATMENT FOR MUNICIPAL AND PRIVATE SEWAGE TREATMENT WORKS DISCHARGING TO SURFACE WATERS.**

This policy describes the levels of treatment that the Ministry requires at municipal and private sewage treatment works discharging to surface waters.

The policy establishes that the normal level of treatment required in the province for municipal and private sewage works is secondary treatment or equivalent. Higher than normal level of treatment would be required where justified by an appropriate site-specific receiving water assessment.

*It should be noted that comprehensive regulations relating to levels of treatment are being considered by way of the Municipal Industrial Strategy for Abatement (MISA) Program and will supersede the requirements of this policy once they are in place.*

**08-02      STATEMENT OF POLICY TO GOVERN THE SEPARATION OF SEWERS AND WATERMAINS**

Sewage works, including sanitary sewers, sanitary forcemains, storm sewers, storm forcemains and all appurtenances and fittings thereto, and watermains located parallel to each other, should be constructed in separate trenches maintaining a clear horizontal separation distance of 2.5 m. Deviations from this requirement may be allowed under certain circumstances and with certain conditions and are further outlined in the policy statement.

**08-03      MINIMUM ACCEPTED LEVEL OF SERVICING FOR MUNICIPALLY AND PRIVATELY OWNED COMMUNAL SYSTEMS.**

This policy describes the minimum recommended level of servicing for municipally owned communal water and sewage systems in the Province of Ontario. Such systems must provide acceptable quality and quantity of water, method of water distribution, method of sewage collection, method of sewage treatment and disposal.

**08-04      POLICY TO GOVERN THE PROVISION AND OPERATION OF  
PHOSPHORUS REMOVAL FACILITIES AT MUNICIPAL, INSTITUTIONAL  
AND PRIVATE SEWAGE TREATMENT WORKS.**

This policy describes the requirements for the provision and operation of phosphorus removal facilities on a drainage basin basis. The policy states that certain drainage basins in the province require phosphorus removal down to 1.0 mg/l Total Phosphorus in the effluent. (More stringent requirement may apply on a site specific basis).

Proponents should consult with staff of the Technical Assessment Section at the appropriate Ministry Regional Office to determine which basins are affected and what effluent criteria may be required for a specific discharge. More stringent requirements may apply on a site or watershed specific basis.

**08-06      POLICY TO GOVERN SAMPLING AND ANALYSIS REQUIREMENTS FOR  
MUNICIPAL AND PRIVATE SEWAGE TREATMENT WORKS**

This policy describes the minimum sampling and analysis requirements of the Ministry for Municipal and Private Sewage Works. The purpose of this requirement is to assess the works performance and compliance with effluent requirements.

It should be noted, however, that conditions imposing monitoring and sampling in a Certificate of Approval under section 52 and 53 of the OWRA will govern monitoring of performance and compliance for any specific works.

**12-02      CONSTRUCTION PRIOR TO APPROVAL**

Sewage or water works constructed without the approval of the Director contravene section 52 or 53 of the OWRA.

This conclusion is set out in a policy and thus emphasizes the seriousness with which the Ministry views the practice of constructing works without obtaining an approval. Further, constructing works without approval when one is required is an offence under the Act, and could result in prosecution.

**12-03      APPROVAL OF EXPANSION TO PREVIOUSLY CONSTRUCTED AND  
UNAPPROVED FACILITIES**

This policy relates to expansion or additions to sewage and water works constructed prior to the passage of the OWRA. It requires that the state of the existing works be ascertained



to ensure that the new works are not jeopardized by previously unapproved and unacceptable facilities, and that the old works are capable of accommodating expansion. In this way, the entire completed system consisting of the old and new works can be properly operated.

Information respecting the physical nature and performance of the unapproved works will be required by the Director of Approvals Branch in keeping with the size, complexity and past performance of these works.

**15-01      WATER MANAGEMENT - GOALS, POLICIES, OBJECTIVES AND IMPLEMENTATION PROCEDURES OF THE MINISTRY OF THE ENVIRONMENT**

This policy, often referred to as 'The Blue Book', ensures the effective management of the Provinces water resources. It also establishes specific receiving water criteria (i.e. PWQO's - Provincial Water Quality Objectives) for many pollutants. The 'Blue Book' is a very comprehensive document and should be consulted. The policies covered by the document include:

- Surface Water Quality Management
  - Areas with Water Quality better than Provincial Water Quality Objectives;
  - Areas with Water Quality not meeting Provincial Water Quality Objectives. (Referred to as "Policy 2" in the context of Policy 15-02);
  - Effluent Requirements;
  - Hazardous Substances;
  - Mixing Zones;
- Surface Water Quantity Management
  - Water Quality-Quantity Inter-relationships;
  - Permits to Take Water;
  - Surface Water Conservation;
- Ground Water Quality Management
  - Regulated Sources of Contamination;
  - Unregulated Sources of Contamination;
- Ground Water Quantity Management
  - Permits to Take Water;
  - Resolution of Interference Problems;
  - Ground Water Conservation;



When setting specific receiving water quality criteria the Blue Book requires that the most stringent of the following be imposed:

- Limits based on all provincial guidelines and regulations;
- Limits based on all federal guidelines and regulations; or
- Limits based on assimilative capacity of the receiving water body.

**15-02        SURFACE WATER QUALITY MANAGEMENT  
              DEVIATION FROM "POLICY 2"**

This policy elaborates on the Ministry practice concerning deviations from Surface Water Quality Management "Policy 2" as outlined in Policy 15-01. Deviation from "Policy 2" refers to instances where in areas with water quality not meeting Provincial Water Quality Objectives, it is not possible, (for reasons specified), to prevent further degradation of existing water quality. Procedures to be followed for obtaining a deviation are outlined.

**15-03        PROVINCIAL WATER QUALITY OBJECTIVES FOR RADIONUCLIDES AND  
              TOTAL DISSOLVED SOLIDS**

The policy outlines principles associated with these parameters.

The Provincial Water Quality Objectives for radionuclides are based on drinking water quality requirements. The policy references the Ontario Drinking Water Objectives for further information on the radionuclide objective.

The previously established Provincial Water Quality Objective for Total Dissolved Solids (TDS) has been withdrawn.

**15-06        DRINKING WATER QUALITY: ONTARIO DRINKING WATER OBJECTIVES  
              (ODWO)**

This policy deals with the protection and enhancement of drinking water quality as described in the Ministry document entitled "Ontario Drinking Water Objectives". The policy is intended to protect public health and encourage the provision of aesthetically pleasing water. Policy statements are made in the document which should be referenced for further information.

**15-08      INCORPORATION OF THE REASONABLE USE CONCEPT INTO  
GROUNDWATER MANAGEMENT ACTIVITIES**

This policy establishes the basis for determining the reasonable use of groundwater on property adjacent to sources of contaminants.

The policy addresses the levels of contaminant discharges considered acceptable by the Ministry and the levels of contamination in water supplies which warrant the requirement for restoration of those water supplies.

**15-13      POTABLE WATER STORAGE STRUCTURES**

This policy establishes the requirement for the provision of covers for structures used for the storage of potable water. The policy is written in support of Policy 15-06 Ontario Drinking Water Objectives.

**15-14      TREATMENT REQUIREMENTS FOR MUNICIPAL AND COMMUNAL WATER  
WORKS USING SURFACE WATER SOURCES**

This policy describes the treatment that the Ministry requires at municipal and communal water works using surface water as a raw water supply.

All water works in the Province of Ontario which utilize surface water as a source of raw water shall use treatment processes consisting of coagulation-flocculation (by means of the application of approved chemical coagulants), filtration and disinfection as a minimum.

Deviation from the policy may be permitted on a case by case basis and Guidelines for Granting a Variance from Treatment Requirements are provided in support of the policy.

**15-15      TREATMENT REQUIREMENTS FOR MUNICIPAL AND COMMUNAL WATER  
WORKS USING GROUND WATER SOURCES**

This policy describes the treatment that the Ministry will require at municipal and communal water works using ground sources for raw water supply.

All water works in the Province of Ontario which utilize ground waters as a source of raw water shall be provided with a treatment process consisting of disinfection as a minimum.

Chlorination equipment and operation shall conform to the

requirements set out in the Ministry document entitled "Chlorination of Potable Water Supplies" (Bulletin 65-W-4).

Deviation from the policy may be permitted on a case by case basis and Guidelines for Granting a Variance from Treatment Requirements are provided in support of the policy.



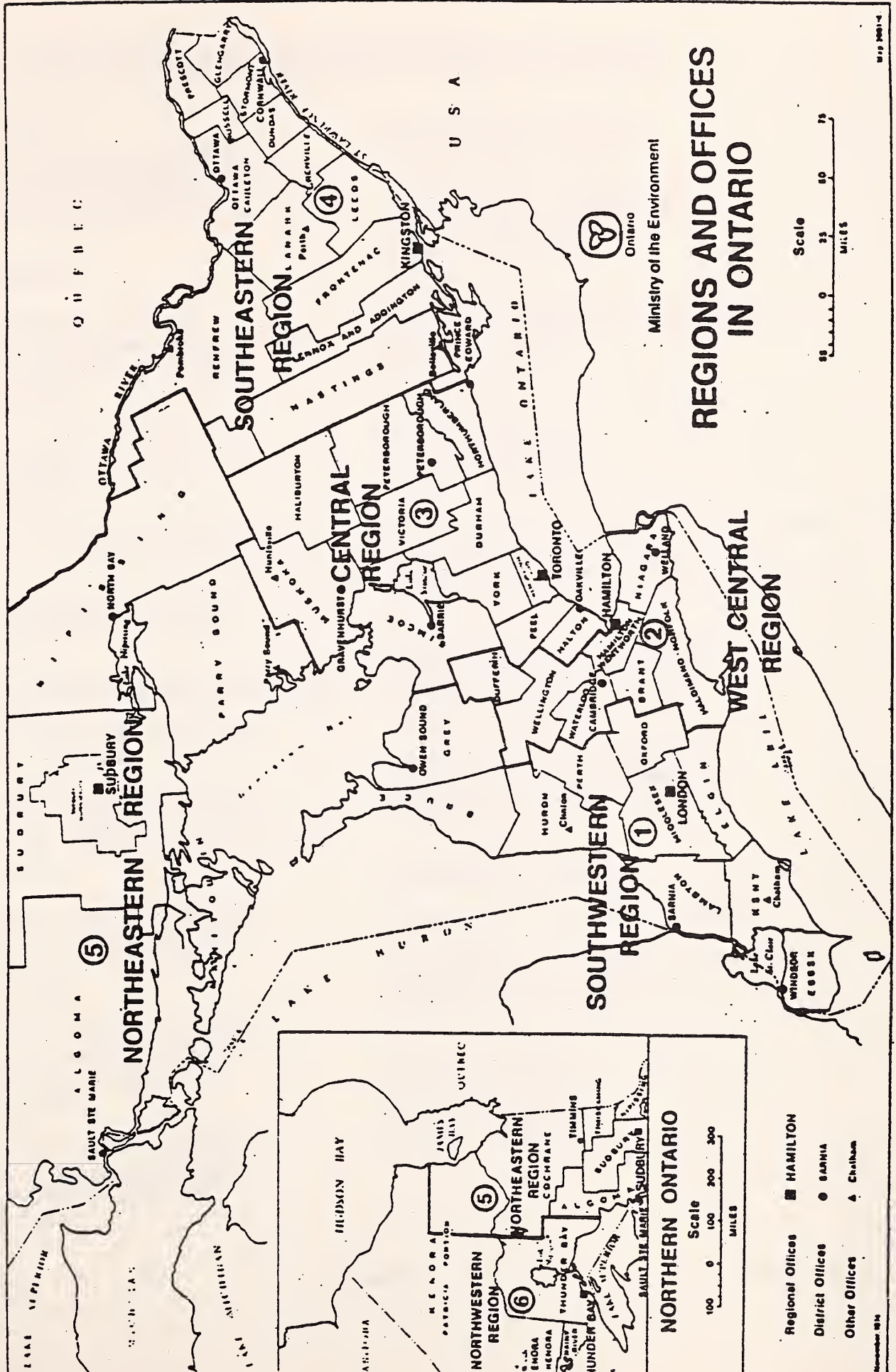


## **APPENDIX III**

### **MINISTRY OF THE ENVIRONMENT OFFICES**









## MOE Approvals Branch, District Offices and Regions

### Approvals Branch

Municipal Approvals Section  
3rd Floor, 250 Davisville Ave.  
Toronto, Ontario M4S 1H2  
(416) 440 - 3713

### Central Region

Toronto Regional Office  
4th Floor, 7 Overlea Blvd.  
Toronto, Ontario M4H 1A8  
(416) 424-3000

Barrie District Office  
12 Fairview Rd.  
Barrie, Ontario L4N 4P3  
(705) 726-1730

Halton-Peel District Office  
Suite 401  
1235 Trafalgar Rd.  
Oakville, Ontario L6H 3P1  
(416) 844-5747

Muskoka-Haliburton District Office  
483 Bethune Dr.  
Gravenhurst, Ontario P0C 1G0  
(705) 687-6647

Peterborough District Office  
139 George St. North  
Peterborough, Ontario K9J 3G6  
(705) 743-2972

Toronto East District Office  
4th Floor, 7 Overlea Blvd.  
Toronto, Ontario M4H 1A8  
(416) 424-3000

Toronto West District Office  
4th Floor, 7 Overlea Blvd.  
Toronto, Ontario M4H 1A8  
(416) 424-3000

York-Durham District Office  
4th Floor, 7 Overlea Blvd.  
Toronto, Ontario M4H 1A8  
(416) 424-3000

### Northeastern Region

Sudbury Regional Office  
11th Floor, 199 Larch St.  
Sudbury, Ontario P3E 5P9  
(705) 675-4501

North Bay District Office  
Northgate Plaza, 1500 Fisher St.  
North Bay, Ontario P1B 2H3  
(705) 476-1001

Parry Sound Sub-Office  
74 Church St.  
Parry Sound, Ontario P2A 1Z1  
(705) 746-2139

Sault Ste. Marie District Office  
445 Albert St. East  
Sault Ste. Marie, Ontario P6A 2J9  
(705) 949-4640

Sudbury District Office  
11th Floor, 199 Larch St.  
Sudbury, Ontario P3E 5P9  
(705) 675-4501

Timmins District Office  
83 Algonquin Blvd. West  
Timmins, Ontario P4N 2R4  
(705) 268-3222

### Northwestern Region

Thunder Bay Regional Office  
P.O. Box 5000  
3rd Floor, 435 James St. South  
Thunder Bay, Ontario P7C 5G6  
(807) 475-1205

Kenora District Office  
P.O. Box 5150  
808 Robertson St.  
Kenora, Ontario P9N 1X9  
(807) 468-2718



Thunder Bay District Office  
P.O. Box 5000  
3rd Floor, 435 James St. South  
Thunder Bay, Ontario P7C 5G6  
(807) 475-1205

#### Southeastern Region

Kingston Regional Office  
P.O. Box 820  
133 Dalton Ave.  
Kingston, Ontario K7L 4X6  
(613) 549-4000

Belleville Sub-Office  
15 Victoria Ave.  
Belleville, Ontario K8N 1Z5  
(613) 549-4000

Cornwall District Office  
205 Amelia St.  
Cornwall Ontario K6H 3P3  
(613) 933-7402

Kingston District Office  
P.O. Box 820  
133 Dalton Ave.  
Kingston, Ontario K7L 4X6  
(613) 549-4000

Ottawa District Office  
2nd Floor, 2378 Holly Lane  
Ottawa, Ontario K1V 7P1  
(613) 521-3450

Pembroke Sub-Office  
1000 Mackay St.  
Pembroke, Ontario K8B 1A3  
(613) 732-3643

#### Southwestern Region

London Regional Office  
985 Adelaide St. South  
London, Ontario N6E 1V3  
(519) 661-2200

Owen Sound District Office  
1180 - 20th St. East  
Owen Sound, Ontario N4K 6H6  
(519) 371-2901

Sarnia Area Office  
Suite 109, 265 Front St. North  
Sarnia, Ontario N7T 7X1  
(519) 336-4030

Windsor District Office  
8th Floor, 250 Windsor Ave.  
Windsor, Ontario N9A 6V9  
(519) 254-2546

#### West Central Region

Hamilton Regional Office  
12th Floor, 119 King St. West  
P.O. Box 2112  
Hamilton, Ontario L8N 3Z9  
(416) 521-7640

Cambridge District Office  
400 Clyde Rd.  
P.O. Box 219  
Cambridge, Ontario N1R 5T8  
(519) 622-8150

Hamilton District Office  
12th Floor, 119 King St. West  
P.O. Box 2112  
Hamilton, Ontario L8N 3Z9  
(416) 521-7640

Welland District Office  
637 - 641 Niagara St. North  
Welland, Ontario L3C 1L9  
(416) 384-9845

## **APPENDIX IV**

### **LIST OF APPROVALS AND PERMITS**





## List of Approvals and Permits

The following is a list of approvals and permits required by Ministry legislation which may relate to water and sewage works. This list is supplied for information only and is not intended to be used as a checklist for satisfying the legal requirements of the legislation.

- \* Approval under the Environmental Assessment Act (EAA) to proceed with the undertaking;
- \* Completion of a planning process as described in the approved Class Environmental Assessment for Municipal Sewage and Water Projects;
- \* Approval under section 52 of the Ontario Water Resources Act (OWRA) to establish, alter, extend or replace new or existing water works;
- \* Approval under section 53 of the Ontario Water Resources Act (OWRA) to establish, alter, extend or replace new or existing sewage works;
- \* Approval under Part V of the Environmental Protection Act (EPA) and Regulation 309 for waste disposal sites - i.e. land fill sites, hazardous wastes, etc.;
- \* Approval under Part V of the Environmental Protection Act (EPA) and Regulation 309 for organic waste management systems and organic solid conditioning sites;
- \* Approval under section 9 of the Environmental Protection Act (EPA) to construct, alter, extend or replace any plant, structure or equipment that may discharge contaminants into the air;
- \* Approval under Part VIII of the Environmental Protection Act (EPA) to construct sewage systems i.e. septic systems etc.;
- \* Permit to Take Water under section 34 of the Ontario Water Resources Act (OWRA) for the taking of more than 50,000 litres per day from an existing water body, including ground water and surface water;
- \* Development Permit under Section 24(1) of the Niagara Escarpment Planning and Development Act (NEPDA) for the works located within an area of development control as defined by the regulations under that Act.



## **APPENDIX V**

### **TRANSFER OF REVIEW PROGRAM**





## MUNICIPALITIES CURRENTLY UNDER TRANSFER OF REVIEW PROGRAM

### Southwest

1. City of London \*\*
2. City of Chatham
3. Township of Moore \*

### Southeast

16. R. M. of Ottawa-Carleton
17. City of Kingston

### Central

4. D. M. of Muskoka \*\*
5. R. M. of York
6. R. M. of Durham
7. R. M. of Peel
8. R. M. of Halton
9. Metro Toronto
10. City of Barrie

### Northeast and Northwest

18. R. M. of Sudbury
19. City of Thunder Bay
20. City of North Bay
21. City of Timmins
22. City of Sault Ste. Marie \*

### West Central

11. R. M. of Niagara
12. R. M. of Hamilton-Wentworth
13. R. M. of Waterloo
14. R. M. of Haldimand-Norfolk
15. City of Brantford

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\* Sewage and watermains only (no pumping stations)

\*\* Including storm water management (not treatment)

## WORKS COVERED BY THE TRANSFER OF REVIEW PROGRAM

The Transfer of Review Program is limited to the following environmentally less sensitive works:

### WATER WORKS

- \* watermains;
- \* booster pumping stations;
- \* storage facilities;
- \* meter chambers;

### SEWAGE WORKS

- \* sanitary sewers;
- \* storm sewers;
- \* stormwater pumping stations;
- \* sewage pumping stations (except those discharging directly to a sewage treatment plant);
- \* forcemains and syphons;
- \* storm water management works (to ensure post-development flows do not exceed pre-development flows);
- \* rehabilitation of existing combined sewers (excluding overflows);

## WORKS NOT COVERED BY THE TRANSFER OF REVIEW PROGRAM

The Transfer of Review Program currently does not include the following works:

### WATER WORKS

- \* water intake pipes;
- \* water supply and treatment works;
- \* high and low lift pumping stations;
- \* water storage facilities at water treatment plants;
- \* chemical feeding equipment;

### SEWAGE WORKS

- \* sewage treatment works and outfalls;
- \* storm water management works requiring storm water quality control;
- \* pumping stations discharging directly to sewage treatment works;
- \* sewers with overflows;
- \* combined sewers with overflows;
- \* combined sewers in new areas;
- \* combined sewage storage facilities;
- \* sewer connections from landfilling sites for leachate transport;









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